JS 44 (Rev. 06/17)

CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON NEXT PAGE OF THIS FORM.)

perpose of initiating the civil e	BOCKET SHEEL, (SEE INSTITUT	TIONS ON NEXT PAGE C	טיו צותו יוע	navi.)					
I. (a) PLAINTIFFS Ironworks Patents, LLC				DEFENDANTS TCL Communicati Corporation; and			LTD (TCT);	TCL	
(b) County of Residence of First Listed Plaintiff Cook County (EXCEPT IN U.S. PLAINTIFF CASES)				County of Residence of First Listed Defendant (IN U.S. PLAINTIFF CASES ONLY) NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE TRACT OF LAND INVOLVED.					
(c) Attomeys (I-irm Name, CGS3, LLP: Gregory S. Diego, CA 92130, (858) 3 Monroe Street, Suite 340	Markow, 12750 High B 367-7676; Global IP Lav	Bluff Drive, Suite 25 w Group, LLC, 55 W		Attorneys (If Known)					
II. BASIS OF JURISD	ICTION (Place an "X" in C	One Box Only)		TIZENSHIP OF P	RINCIPA	L PARTIES			
☐ I U.S. Government Plaintiff	■ 3 Federal Question (U.S. Government	Not a Party)	1		TF DEF	Incorporated or Priof Business In T		or Defenda PTF 4	DEF
☐ 2 U _a S _a Government Defendant	☐ 4 Diversity (Indicate Citizensh	ip of Parties in Item III)	Citize	en of Another State	1 2 🗇 2	Incorporated and F of Business In A		5	1 5
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IV. NATURE OF SUIT			1 60	DEFITIOS/PENALTV		here for: Nature o			
□ 110 Insurance □ 120 Marine □ 130 Miller Act □ 140 Negotiable Instrument □ 150 Recovery of Overpayment & Enforcement of Judgment □ 151 Medicare Act □ 152 Recovery of Defaulted Student Loans (Excludes Veterans) □ 153 Recovery of Overpayment of Veteran's Benefits □ 160 Stockholders' Suits □ 190 Other Contract □ 195 Contract Product Liability □ 196 Franchise REAL PROPERTY □ 210 Land Condemnation □ 220 Foreclosure □ 230 Rent Lease & Ejectment □ 245 Tort Product Liability □ 290 All Other Real Property	PERSONAL INJURY 310 Airplane 315 Airplane Product Liability 320 Assault, Libel &	PERSONAL INJUR 365 Personal Injury - Product Liability 367 Health Care/ Pharmaceutical Personal Injury Product Liability 368 Asbestos Personal Injury Product Liability PERSONAL PROPER 370 Other Fraud 371 Truth in Lending 380 Other Personal Property Damage 385 Property Damage 70 Additional Experimental Product Liability PRISONER PETITION Habeas Corpus: 463 Alien Detainee 510 Motions to Vacate Sentence 530 General 535 Death Penalty Other: 540 Mandamus & Other 550 Civil Rights 555 Prison Condition 560 Civil Detainee - Conditions of Confinement	7 62 69 69 69 69 69 71 72 72 74 75 79 79 79 79 79 79 79	DRFEITURE/PENALTY 5 Drug Related Seizure of Property 21 USC 881 0 Other 1 ABOR 0 Fair Labor Standards Act 0 Labor/Management Relations 0 Railway Labor Act 1 Family and Medical Leave Act 0 Other Labor Litigation 1 Employee Retirement Income Security Act IMMIGRATION 2 Naturalization Application 5 Other Immigration Actions	422 Appe 423 With 28 U PROPEI 320 Copp 830 Paten New 840 Trade 861 HIA 862 Black 864 SSID 865 RSI (870 Taxes or Dot 871 IRS—26 U	RTY RIGHTS rrights at the Abbreviated Drug Application emark SECURITY (1395ff) 6 Lung (923) C/DIWW (405(g)) 9 Title XVI	375 False C 376 Qui Tan 3729(a) 400 State Re 410 Antitrus 430 Banks a 450 Comme 460 Deporta 470 Rackete Corrupt 480 Consum 490 Cable/S 850 Securiti. Exchan 890 Other S 891 Agriculi 893 Environa 895 Freedom Act 896 Arbitrat 899 Adminis Act/Rev	n (31 USC))) apportion to the management of t	ment g eed and ions dities/ ctions teers nation
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1 2 3 4	Gregory Markow (State Bar No. 216748) gmarkow@cgs3.com Crosbie Gliner Schiffman Southard & Swanson LLP (CGS3) 12750 High Bluff Dr., Suite 250 San Diego, California 92130 Telephone: (858) 367-7676		
5 6 7 8 9 10	David Berten (IL Bar # 6200898) (to be admitted <i>Pro Hac Vice</i>) dberten@giplg.com Alison Aubry Richards (IL Bar # 6285669) (to be admitted <i>Pro Hac Vice</i>) arichards@giplg.com Hannah Sadler (IL Bar # 6321429) (to be admitted <i>Pro Hac Vice</i>) hsadler@giplg.com Global IP Law Group, LLC 55 West Monroe Street, Suite 3400 Chicago, IL 60603		
12 13 14 15		ES DISTRICT COURT RICT OF CALIFORNIA	
17	IRONWORKS PATENTS, LLC,	Case No.	
18 19 20	Plaintiff, v.	COMPLAINT FOR PATENT INFRINGEMENT AND JURY TRIAL DEMANDED	
21 22 23	TCL COMMUNICATION TECHNOLOGY HOLDINGS LTD (TCT); TCL CORPORATION and TCT MOBILE (US) INC.		
24 25	Defendants.		
26			

This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code, against Defendants TCL Communication Technology Holdings LTD (TCT), TCL Corporation, and TCT Mobile (US) Inc. (collectively "TCL") that relates to three U.S. patents owned by Ironworks Patents, LLC ("Ironworks"): 6,002,390; 9,521,269 and RE39,231 (collectively, the "Patents-in-Suit").

PARTIES

- 1. Plaintiff Ironworks is a limited liability company organized under the laws of the State of Illinois, with an office at 125 S. Clark St., 17th Floor, Chicago, Illinois 60603.
- 2. Defendant TCL Communication Technology Holdings LTD (TCT) is a Chinese corporation with its principal place of business at 15/F, Tower B, TCL Building, Gaoxin Nan Yi Road, Nanshan District, Shenzhen, Guangdong, P.R. China.
- 3. Defendant TCL Corporation is a Chinese corporation with its principal place of business at 22/F, TCL Technology Building, 17 Huifeng 3rd Road, Zhongkai Hi-tech Development District, Huizhou, Guangdong, 516006 P.R. China.
- 4. Defendant TCT Mobile (US) Inc. is a Delaware corporation with its principal place of business at 25 Edelman, Suite 200, Irvine, CA 92618.
- 5. TCL makes, uses, imports, sells and offers for sale wireless mobile devices including smartphones and related applications and services.
- 6. TCL's website (http://www.tclcom.com/?page=company_profile) states, "In 2016, TCL Communication's total sales volume of handsets and other products was 68.77 million units, while the cumulative sales volume of smart devices was 38,98 million units. According to the international telecommunications research firm IDC and Company data of 2016 Q4, TCL Communication ranked no. 7 among global handset manufacturers, tablet business ranked no. 7 among all tablet manufacturers."

COMPLAINT

7. TCL's website (https://www.tctusa.com/) states, "With a mobile handset product portfolio that includes devices from TCL, Alcatel and BlackBerry, TCT is currently the fourth largest handset manufacturer in North America. The company also operates nine R&D centers worldwide and employs over 13,500 people globally."

JURISDICTION AND VENUE

- 8. This is a civil action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. § 1, et seq., and more particularly 35 U.S.C. § 271.
- 9. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).
- 10. Each TCL Defendant is subject to this Court's general personal jurisdiction pursuant to due process and/or the California Long Arm Statute, Cal. Code Civ. Proc § 410.10, due at least to its substantial business conducted in this District, including: (i) having solicited business in the State of California, transacted business within the State of California and attempted to derive financial benefit from residents of the State of California in this District, including benefits directly related to the instant patent infringement causes of action set forth herein; (ii) having placed its products and services into the stream of commerce throughout the United States and having been actively engaged in transacting business in California and in this District, and (iii) having committed the complained of tortious acts in California and in this District.
- 11. TCL, directly and/or through subsidiaries and agents (including distributors, retailers, and others), makes, imports, ships, distributes, offers for sale, sells, uses, and advertises (including offering products and services through its website as well as other retailers) its products and/or services in the United States, the State of California and the Central District of California.
- 12. TCL, directly and/or through its subsidiaries and agents (including distributors, retailers, and others), has purposefully and voluntarily placed one or more of its infringing products and/or

services, as described below, into the stream of commerce with the expectation that they will be purchased and used by consumers in the Central District of California. These infringing products and/or services have been and continue to be purchased and used by consumers in the Central District of California. TCL has committed acts of patent infringement within the State of California and, more particularly, within the Central District of California.

- 13. This Court's exercise of personal jurisdiction over TCL is consistent with the California Long Arm Statute, Cal. Code Civ. Proc § 410.10, and traditional notions of fair play and substantial justice.
- 14. Venue is proper in this District under §1400 (b), which provides that "Any civil action for patent infringement may be brought in the judicial district where the defendant resides, or where the defendant has committed acts of infringement and has a regular and established place of business."

 Venue is proper as to Defendant TCT Mobile (US) Inc., which resides in California, because it has a regular and established place of business in this District at 25 Edelman, Suite 200, Irvine, CA 92618.

 Venue is proper as to Defendants TCL Communication Technology Holdings LTD (TCT) and TCL Corporation, which are organized under the laws of China, under 28 U.S.C. § 1391(c)(3) that 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."

BACKGROUND FACTS REGARDING THE IRONWORKS PATENTS

- 15. Ironworks is the owner of record and assignee of each of U.S. Patent Nos. 6,002,390 ("the '390 Patent"); 9,521,269 ("the '269 Patent") and RE39,231 ("the '231 Patent"), collectively the "Patents-in-Suit".
- 16. The '390 Patent and RE39,231 were originally filed by, and assigned to, Sony Corporation ("Sony").

17.	Sony, based in Japan, is one of the world's largest consumer electronics and
entertainment	companies.

- 18. Sony spends a significant amount of revenue on research and development. For example, Sony Corporation spent over \$4 billion on research and development in each year from 2012 -2016 (e.g. 468,183 million yen in 2016).
- 19. Sony's long history of innovation has resulted in the company being awarded more than 3,200 patents.
 - 20. The '269 Patent is a continuation of a continuation application filed by Nokia.
- 21. Nokia is a Finnish multinational communications and information technology company, and at one time was the world's largest producer of mobile phones.
 - 22. For example, the world's first mobile phone satellite call was made on a Nokia phone.
- 23. For more than 20 years, Nokia has defined many of the fundamental technologies used in virtually all mobile devices and taken a leadership role in standards setting. As a result, Nokia owns a leading share of essential patents for GSM, 3G radio and 4G LTE technologies. These, together with other Nokia patents for Wi-Fi and video standards, form the core of Nokia's patent portfolio.
- 24. Nokia spends a significant amount of revenue on research and development. For example, Nokia spent about 4.9 billion Euros R&D investment in 2011 and 2016. Between 1984 and 2014, Nokia has invested more than 50 billion Euros to create a portfolio of 30,000 patents and patent applications.
- 25. Nokia's long history of innovation has resulted in the company being awarded more than 30,000 patents in more than 10,000 patent families.

THE PATENTS-IN-SUIT AND CLAIMS-IN-SUIT

26. Ironworks has the exclusive right to sue and the exclusive right to recover damages for infringement of the Patents-in-Suit during all relevant time periods.

- 27. On December 14, 1999, the '390 Patent entitled "Text input device and method" was duly and legally issued by the USPTO.
- 28. On December 13, 2016, the '269 Patent entitled "Method of giving the user information and portable device" was duly and legally issued by the USPTO.
- 29. On August 8, 2006, U.S. Patent No. RE39,231 entitled "Communication terminal equipment and call incoming control method" was duly and legally issued by the USPTO.

TCL'S INFRINGING PRODUCTS

- 30. TCL has been, and now is, directly infringing claims of the Patents-in-Suit under 35 U.S.C. § 271(a) by making, using, offering for sale, selling, and/or importing the below accused smartphones and other mobile wireless devices in this District and elsewhere in the United States that include the systems claimed in the Patents-in-Suit and/or by using the methods claimed in the Patents-in-Suit, including, for example, TCL's use of said methods during set-up, testing, and demonstration of its smartphones and tablets.
- 31. TCL has been and now is inducing the direct infringement of method claims of the Patents-in-Suit pursuant to U.S.C. § 271(b) at least by one or more of making, using, offering for sale, selling and/or importing the below accused smartphones, tablets, and other mobile wireless devices in this District and elsewhere in the United States that were designed and intended to use and/or practice the methods and processes covered by the Patents-in-Suit. Further, TCL has induced infringement by, for example, providing user guides and other support materials and services to its users and by advertising features that are used, and benefits that are achieved through use of the Patents-in-Suit.
- 32. Despite TCL's awareness of the Patents-in-Suit, TCL has continued these acts of inducement with specific intent to cause and encourage direct infringement of the Patents-in-Suit with willful blindness that such activities occurred, are still occurring, and constitute direct infringement of the Patents-in-Suit.

TCL'S KNOWLEDGE OF THE PATENTS-IN-SUIT, HOW TCL INFRINGES THEM, AND TCL'S CONTINUED INFRINGEMENT DESPITE THAT KNOWLEDGE

- 33. The Patents-in-Suit were previously owned by MobileMedia Ideas, LLC ("MMI").
- 34. Prior to this litigation, MMI attempted to resolve the issues now in this litigation over a period of over seven years through at least two meetings with TCL in China; numerous emails to TCL; and at least two sets of claim charts sent to TCL.
 - 35. On September 28, 2010 counsel for MMI sent a letter to TCL Electronics Inc.
- 36. In addition to identifying the '390 and '231 Patents-in-Suit, MMI's letter identified the TCL products and methods that infringe them, including several specific TCL smartphone models available at that time.
 - 37. TCL did not respond.
- 38. On May 18, 2012, MMI followed up with TCL about a potential license to MMI's patents and suggested an in-person meeting in Asia to discuss next steps.
 - 39. TCL did not respond.
- 40. After MMI followed up again by email, representatives of MMI and TCL met in person at TCL's Shenzhen office in June 2012. MMI presented claim charts to Mr. Zeng Hu for multiple MMI patents, including the '390 and '231 Patents.
 - 41. After multiple follow-up emails, the parties met again in May 2013.
 - 42. Over the following months, MMI sent multiple emails to multiple TCL representatives.
- 43. On January 29, 2015, William Meng sent MMI an email stating, "I am William from TCT, and responsible for Patent work. I received your letter as attached from my colleague, and I am not clear about the matter mentioned in your letter, could you please provide more information on that for me? Thanks!"
 - 44. MMI sent follow-up emails to Meng in February 2015, November 2015, and January

2016 but TCL did not respond.

- 45. TCL never raised any non-infringement defense related to any of the Patents-in-Suit.
- 46. TCL never raised any prior art issue related to any of the Patents-in-Suit.
- 47. TCL has not agreed to enter into a licensing agreement with MMI or Ironworks.
- 48. TCL has not provided MMI or Ironworks any licensing proposal.
- 49. TCL has not provided any licensing or settlement offer.
- 50. TCL never entered any NDA with MMI or Ironworks.
- 51. This Complaint serves as additional notice to TCL of the Patents-in-Suit and the manner in which they are infringed.
- 52. Despite knowledge of the Patents-in-Suit and knowledge of the manner in which the Patents-in-Suit are infringed as demonstrated in the provided claim charts, TCL has continued to infringe, and induce the infringement of, the Patents-in-Suit.

COUNT I: INFRINGEMENT OF PAT. RE39,231 CLAIM 12

- 53. Ironworks reasserts and realleges paragraphs 1 through 52 of this Complaint as though set forth fully here.
 - 54. Claim 12 of the '231 Patent provides:

Preamble to Claim 12	A communication terminal for informing a user of a received call from a remote caller by an alert sound, comprising:
Element A	an alert sound generator for generating the alert sound when the call is received from the remote caller;
Element B	control means for controlling said alert sound generator; and
Element C	means for specifying a predetermined operation by the user, wherein when said alert sound generator is generating the alert sound and said means for specifying said predetermined operation is operated by the user, said control means controls said alert sound generator to change a volume of the generated alert sound only for the received call, without affecting the volume of the alert sound for future received calls, while leaving a call ringing state, as perceived by the remote caller, of the call to the terminal from the remote caller unchanged,
Element D	further comprising: RF signal processing means for transmitting and/or receiving radio waves; and an antenna for transmitting and/or receiving said radio waves, wherein said call ringing state between said apparatus and said remote caller is established by said transmitted and/ or received radio waves.

- 55. TCL makes, uses, sells, offers for sale, and imports wireless mobile devices, including mobile smartphones that are communication terminals for informing a user of a received call from a remote caller by an alert sound ("Accused '231 TCL Smartphones"). The Accused '231 TCL Smartphones include, for example, at least the Alcatel Idol2, Idol3, and IdolX.
- 56. TCL has and continues to make, use, sell, import, and/or offer for sale the Accused '231 TCL Smartphones that meet each and every element of claim 12 of the '231 Patent.
- 57. Accused '231 TCL Smartphones are communication terminals that inform a user of a received call from a remote caller by an alert sound (e.g., a ringtone).
- 58. Accused '231 TCL Smartphones include an alert sound generator (e.g., a loudspeaker and associated circuitry) for generating the alert sound (e.g., ringtone) when the call is received from the remote caller.

- 59. Accused '231 TCL Smartphones include control means for controlling the alert sound generator (e.g., muting the ringtone).
- 60. Accused '231 TCL Smartphones include means for specifying a predetermined operation by the user (e.g., pressing the volume key or turning over the phone).
- 61. When the Accused '231 Smartphone alert sound generator is generating the ringtone and the volume button is pressed by the user or the phone is flipped by the user, the control means controls the alert sound generator to change a volume of the generated ringtone only for the received call.
- 62. The ringtone is silenced for the incoming call without affecting the volume of the alert sound for future received calls, while leaving a call ringing state, as perceived by the remote caller, unchanged.
- 63. Accused '231 TCL Smartphones include RF signal processing means for transmitting and/or receiving radio waves and an antenna for transmitting and/or receiving said radio waves.
- 64. The call ringing state between the Accused '231 Smartphone and the remote caller is established by the transmitted and/ or received radio waves.
- 65. The technology claimed in claim 12 was not well understood, routine, or conventional at the time that the application was filed and provided a technological solution to a technological problem rooted in computer technology.
- 66. Direct infringement of claim 12 occurs when TCL makes, imports, uses, sells and offers for sale the Accused '231 TCL Smartphones that meet claim 12 of the '231 Patent.
- 67. TCL had knowledge of the '231 Patent and Ironworks' allegations of how the Accused '231 TCL Smartphones infringe claims of the '231 Patent since at least June 28, 2012.
- 68. TCL makes, uses, offers to sell, sells, and/or imports the Accused '231 TCL Smartphones knowing that the Accused '231 TCL Smartphones infringe claim 12 of the '231 Patent.

COUNT II: INFRINGEMENT OF PAT. RE39,231 CLAIM 2

- 69. Ironworks reasserts and realleges paragraphs 1 through 68 of this Complaint as though set forth fully here.
 - 70. Claim 2 of the '231 Patent provides:

Element A	The communication terminal according to claim 12, wherein said control
	means controls the state of said alert sound generator to stop the sound.

- 71. TCL has and continues to make, use, sell, import, and/or offer for sale the Accused '231 TCL Smartphones that meet each and every element of claim 2 of the '231 Patent.
- 72. Accused '231 TCL Smartphones include control means that control the state of the alert sound generator to stop the sound (e.g., mute the ringtone).
- 73. Direct infringement of claim 2 occurs when TCL makes, imports, uses, sells and offers for sale the Accused '231 TCL Smartphones that meet claim 2 of the '231 Patent.
- 74. TCL had knowledge of the '231 Patent and Ironworks' allegations of how the Accused '231 TCL Smartphones infringe claims of the '231 Patent since at least June 28, 2012.
- 75. TCL makes, uses, offers to sell, sells, and/or imports the Accused '231 TCL Smartphones knowing that the Accused '231 TCL Smartphones infringe claim 2 of the '231 Patent.

COUNT III: INFRINGEMENT OF PAT. 6,002,390 CLAIM 18

- 76. Ironworks reasserts and realleges paragraphs 1 through 75 of this Complaint as though set forth fully here.
 - 77. Claim 18 of the '390 Patent provides:

Preamble	A text input method comprising:
to Claim 18	
Element A	a display step of displaying a virtual keyboard having at least a plurality of keys for character input;
Element B	an input step of pointing at least each key on the virtual keyboard to perform key input by the virtual keyboard; and
Element C	a retrieval step of retrieving a plurality of candidate words from a dictionary storing a plurality of candidate words and a plurality of exemplary phrases, using the key input performed from the virtual keyboard at the input step as a retrieval condition;
Element D	the retrieval condition and the candidate words being dynamically changed in accordance with a change in a key input operation state of the virtual keyboard at the input step.

- 78. TCL makes, uses, sells, offers for sale, and imports wireless mobile devices, including mobile smartphones that perform a text input method ("Accused Predictive Text TCL Smartphones"). The Accused Predictive Text TCL Smartphones include, for example, at least the Alcatel A30, A50, Go Flip, Idol2, Idol3, Idol4, Idol4S, Idol5, Idol5S, IdolX, Pop4S and the BlackBerry KeyOne.
- 79. TCL has and continues to make, use, sell, import, and/or offer for sale the Accused Predictive Text TCL Smartphones that meet each and every element of claim 18 of the '390 Patent.
 - 80. Accused Predictive Text TCL Smartphones enable performance of a text input method.
- 81. Accused Predictive Text TCL Smartphones display a virtual keyboard having at least a plurality of keys for character input;
- 82. Accused Predictive Text TCL Smartphone users point to at least each key on the virtual keyboard to perform key input by the virtual keyboard; and
- 83. Accused Predictive Text TCL Smartphones retrieve a plurality of candidate words from a dictionary storing a plurality of candidate words and a plurality of exemplary phrases, using the key input performed from the virtual keyboard at the input step as a retrieval condition.

- 84. The retrieval condition and the candidate words are dynamically changed in accordance with a change in a key input operation state of the virtual keyboard at the input step.
- 85. The technology claimed in claim 18 was not well understood, routine, or conventional at the time that the application was filed and provided a technological solution to a technological problem rooted in computer technology.
- 86. TCL had knowledge of the '390 Patent and Ironworks' allegations of how the Accused Predictive Text TCL Smartphones infringe claims of the '390 Patent since at least June 28, 2012.
- 87. TCL makes, uses, offers to sell, sells, and/or imports the Accused Predictive Text TCL Smartphones knowing that the Accused Predictive Text TCL Smartphones infringe claim 18 of the '390 Patent.
- 88. TCL directly infringes claim 18 of the '390 patent by using the Accused Predictive Text TCL Smartphones directly, including in relation to product testing.
- 89. In the alternative, TCL induces infringement of claim 18 of the '390 patent by end users including by distributing the Accused Predictive Text TCL Smartphones that practice the claimed process in ordinary use.
- 90. TCL makes, uses, offers to sell, sells, and/or imports the Accused Predictive Text TCL Smartphones knowing that TCL's customers and/or end users have directly infringed and are directly infringing each and every claim limitation of at least claim 18 of the '390 patent. TCL actively induces customers and end-users to directly infringe each and every claim limitation of at least claim 18 of the '390 patent under 35 U.S.C. § 271(b).
- 91. TCL has been and is knowingly inducing its customers and/or end users to directly infringe at least claim 18 of the '390 patent with the specific intent to encourage such infringement, and knowing that the acts induced constitute patent infringement. TCL's inducement includes, for example, encouraging customers to turn on and use the Accused Predictive Text TCL Smartphones by providing

technical guides, product data sheets, demonstrations, software and hardware specifications, installation guides, and other forms of support that induce its customers and/or end users to directly infringe at least claim 18 of the '390 patent by using the Accused Predictive Text TCL Smartphones' features that are used, and benefits that are achieved through claim 18 of the '390 Patent.

COUNT IV: INFRINGEMENT OF PAT. 9,521,269 CLAIM 1

- 92. Ironworks reasserts and realleges paragraphs 1 through 91 of this Complaint as though set forth fully here.
 - 93. Claim 1 of the '269 Patent provides:

Preamble to Claim 1	A mobile station comprising:
Element A	a user interface configured to enable a user to control operation of the mobile station by manual input and to obtain information on the operation of the mobile station,
Element B	a tactile alert device configured to generate a tactile vibration, and
Element C	a control circuit configured to control the tactile alert device to generate a first tactile vibration with a first pattern in response to a first event and a second tactile vibration with a second pattern that is distinctly humanly perceptibly different from the first pattern in response to a second event different from the first event,
Element D	wherein the first event is correct user manual input.

- 94. TCL makes, uses, sells, offers for sale, and imports wireless mobile devices, including mobile smartphones that are mobile stations ("Accused Fingerprint Scanning TCL Smartphones"). The Accused Fingerprint Scanning TCL Smartphones include, for example, at least the Alcatel Idol4S, Idol5, Idol5S, and Pop4S and the BlackBerry KeyOne.
- 95. TCL has and continues to make, use, sell, import, and/or offer for sale the Accused Fingerprint Scanning TCL Smartphones that meet each and every element of claim 1 of the '269 Patent.
 - 96. Accused Fingerprint Scanning TCL Smartphones are mobile stations.

- 97. Accused Fingerprint Scanning TCL Smartphones include a user interface (e.g., a touchscreen display, camera, speakers, etc.) configured to enable a user to control operation of the mobile station by manual input and to obtain information on the operation of the mobile station.
- 98. Accused Fingerprint Scanning TCL Smartphones include a tactile alert device (e.g., a vibration motor) configured to generate a tactile vibration.
- 99. Accused Fingerprint Scanning TCL Smartphones include a control circuit configured to control the tactile alert device to generate a first tactile vibration with a first pattern in response to a first event (e.g., a successful fingerprint scan) and a second tactile vibration with a second pattern that is distinctly humanly perceptibly different from the first pattern in response to a second event (e.g., an incoming phone call) different from the first event.
 - 100. The first event is correct user manual input (e.g., a successful fingerprint scan).
- 101. The technology claimed in claim 1 was not well understood, routine, or conventional at the time that the application was filed and provided a technological solution to a technological problem rooted in computer technology.
- 102. Direct infringement of claim 1 occurs when TCL makes, imports, uses, sells and offers for sale the Accused Fingerprint Scanning TCL Smartphones that meet claim 1 of the '269 Patent.

COUNT V: INFRINGEMENT OF PAT. 9,521,269 CLAIM 5

- 103. Ironworks reasserts and realleges paragraphs 1 through 102 of this Complaint as though set forth fully here.
 - 104. Claim 5 of the '269 Patent provides:

Element A	The mobile station of claim 1, wherein the second event is an incoming call.

105. TCL has and continues to make, use, sell, import, and/or offer for sale the Accused

Fingerprint Scanning TCL Smartphones that meet each and every element of claim 5 of the '269 Patent.

- 106. Accused Fingerprint Scanning TCL Smartphones are mobile stations as described in claim 1 and the claimed second event is an incoming call.
- 107. Direct infringement of claim 5 occurs when TCL makes, imports, uses, sells and offers for sale the Accused Fingerprint Scanning TCL Smartphones that meet claim 5 of the '269 Patent.

COUNT VI: INFRINGEMENT OF PAT. 9,521,269 CLAIM 9

- 108. Ironworks reasserts and realleges paragraphs 1 through 107 of this Complaint as though set forth fully here.
 - 109. Claim 9 of the '269 Patent provides:

Element A	The mobile station of claim 1, wherein the mobile station is a mobile
	telephone.

- 110. TCL has and continues to make, use, sell, import, and/or offer for sale the Accused Fingerprint Scanning TCL Smartphones that meet each and every element of claim 9 of the '269 Patent.
- 111. Accused Fingerprint Scanning TCL Smartphones, as described in claim 1, are mobile telephones.
- 112. Direct infringement of claim 9 occurs when TCL makes, imports, uses, sells and offers for sale the Accused Fingerprint Scanning TCL Smartphones that meet claim 9 of the '269 Patent.

COUNT VII: INFRINGEMENT OF PAT. 9,521,269 CLAIM 11

- 113. Ironworks reasserts and realleges paragraphs 1 through 112 of this Complaint as though set forth fully here.
 - 114. Claim 11 of the '269 Patent provides:

The mobile station of claim 1 further comprising a battery configured to supply power to the mobile station.

- 115. TCL has and continues to make, use, sell, import, and/or offer for sale the Accused Fingerprint Scanning TCL Smartphones that meet each and every element of claim 11 of the '269 Patent.
- 116. Accused Fingerprint Scanning TCL Smartphones, as described in claim 1, further comprise a battery configured to supply power to the mobile station.
- 117. Direct infringement of claim 11 occurs when TCL makes, imports, uses, sells and offers for sale the Accused Fingerprint Scanning TCL Smartphones that meet claim 11 of the '269 Patent.

COUNT VIII: INFRINGEMENT OF PAT. 9,521,269 CLAIM 16

- 118. Ironworks reasserts and realleges paragraphs 1 through 117 of this Complaint as though set forth fully here.
 - 119. Claim 16 of the '269 Patent provides:

The mobile station of claim 1, wherein the first vibration provides user
feedback indicating to the user that the first event has occurred.

- 120. TCL has and continues to make, use, sell, import, and/or offer for sale the Accused Fingerprint Scanning TCL Smartphones that meet each and every element of claim 16 of the '269 Patent.
- 121. Accused Fingerprint Scanning TCL Smartphones are mobile stations as described in claim 1, wherein the first vibration provides user feedback indicating to the user that the first event has occurred (e.g., a successful fingerprint scan has occurred).
- 122. Direct infringement of claim 16 occurs when TCL makes, imports, uses, sells and offers for sale the Accused Fingerprint Scanning TCL Smartphones that meet claim 16 of the '269 Patent.

COUNT VIII: INFRINGEMENT OF PAT. 9,521,269 CLAIM 17

123. Ironworks reasserts and realleges paragraphs 1 through 122 of this Complaint as though

set forth fully here.

124. Claim 17 of the '269 Patent provides:

The mobile station of claim 1, wherein the first vibration provides user feedback at the time that the first event has occurred.

- 125. TCL has and continues to make, use, sell, import, and/or offer for sale the Accused Fingerprint Scanning TCL Smartphones that meet each and every element of claim 17 of the '269 Patent.
- 126. Accused Fingerprint Scanning TCL Smartphones are mobile stations as described in claim 1, wherein the first vibration provides user feedback at the time that the first event has occurred (e.g., when a successful fingerprint scan has occurred).
- 127. Direct infringement of claim 17 occurs when TCL makes, imports, uses, sells and offers for sale the Accused Fingerprint Scanning TCL Smartphones that meet claim 17 of the '269 Patent.

WILLFUL INFRINGEMENT

- 128. TCL has infringed and continues to infringe the above identified claims of each of the Patents-in-Suit despite its knowledge of the '390 Patent and RE39,231 at least as early as September 28, 2010 and specific knowledge of how TCL's accused systems/methods infringe the '390 Patent and RE39,231 since June 28, 2012.
- 129. TCL's infringement of the Patents-in-Suit is willful and deliberate and its actions constitute egregious misconduct, including refusing to take a license, refusing to negotiate in good faith, and having knowledge of the patents-in-suit and notice of the infringement but having no reasonable factual basis for non-infringement or invalidity (e.g., as alleged in paragraphs 34-52 above). This willful misconduct by TCL entitles Ironworks to enhanced damages under 35 U.S.C. §284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. §285.

JURY DEMAND

Ironworks demands a trial by jury on all issues that may be so tried.

REQUEST FOR RELIEF

WHEREFORE, Plaintiff Ironworks requests that this Court enter judgment in its favor and against Defendants TCL Communication Technology Holdings LTD (TCT), TCL Corporation, and TCT Mobile (US) Inc. as follows:

- A. Adjudging, finding, and declaring that TCL has infringed the above-identified claims of each of the Patents-in-Suit under 35 U.S.C. § 271;
- B. Awarding the past and future damages arising out of TCL's infringement of the Patents-in-Suit to Ironworks in an amount no less than a reasonable royalty, together with prejudgment and post-judgment interest, in an amount according to proof;
- C. Adjudging, finding, and declaring that TCL's infringement is willful and awarding enhanced damages and fees as a result of that willfulness under 35 U.S.C. § 284;
 - D. Adjudging, finding, and declaring that the Patents-in-Suit are valid and enforceable;
- E. Awarding attorney's fees, costs, or other damages pursuant to 35 U.S.C. §§ 284 or 285 or as otherwise permitted by law; and
- F. Granting Ironworks such other further relief as is just and proper, or as the Court deems appropriate.

Respectfully submitted,

March 27, 2018

David Berten IL Bar # 6200898 dberten@giplg.com Alison Aubry Richards IL Bar # 6285669 arichards@giplg.com

Hannah Sadler IL Bar # 6321429 hsadler@giplg.com Global IP Law Group, LLC 55 West Monroe Street, Suite 3400 Chicago, IL 60603 Telephone: (312) 241-1500 Gregory Markow State Bar No. 216748 gmarkow@cgs3.com Crosbie Gliner Schiffman Southard & Swanson LLP (CGS3) 12750 High Bluff Dr., Suite 250 San Diego, California 92130 Telephone: (858) 367-7676 Attorneys for Plaintiff Ironworks Patents, LLC

COMPLAINT