APPENDICES

APPENDIX A

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

2018-1363, 2018-1732

TCL COMMUNICATION TECHNOLOGY
HOLDINGS LIMITED, TCT MOBILE LIMITED,
TCT MOBILE (US) INC.,
Plaintiffs-Appellees,
v.

TELEFONAKTIEBOLAGET LM ERICSSON,
ERICSSON INC.,
Defendants-Appellants.

Appeals from the United States District Court for the Central District of California in No. 8:14-cv-00341-JVS-DFM, Judge James V. Selna.

ERICSSON, INC.,
TELEFONAKTIEBOLAGET LM ERICSSON,
Plaintiffs-Appellants,
v.

TCL COMMUNICATION TECHNOLOGY
HOLDINGS LIMITED, TCT MOBILE LIMITED,
TCT MOBILE (US) INC.,
Defendants-Appellees.

2018-1380, 2018-1382

Appeals from the United States District Court for the Central District of California in No. 2:15-cv-02370-JVS-DFM, Judge James V. Selna.

Decided: December 5, 2019

Before NEWMAN, CHEN, and HUGHES, *Circuit Judges*.

CHEN, *Circuit Judge*.

This appeal arises from a March 9, 2018 decision and order issued by the United States District Court for the Central District of California (the court) imposing "fair, reasonable and non-discriminatory" (FRAND) rates in a binding worldwide license on Appellants (Ericsson) and Appellees (TCL) for Ericsson's portfolio of standard-essential patents (SEPs) incorporated into 2G, 3G, and 4G mobile communications standards.

The court-ordered license set forth two terms relevant on appeal: (1) a prospective FRAND royalty rate for practicing each standard, and (2) a "release payment" computed based on a closely related, retrospective FRAND rate for "TCL's past unlicensed sales." To determine these rates, the court conducted a ten-day bench trial, where the two parties proposed different FRAND rates based on different methodologies. Rejecting both parties' proposed methodologies as flawed, the court employed its own modified version of TCL's proposed "top-down" approach in combination with comparable license evidence to compute both the prospective and retrospective FRAND rates.

The threshold issue on appeal is whether Ericsson had a Seventh Amendment right to a jury trial on the adjudication of the "release payment" term. This inquiry turns on whether the relief sought by the release payment is either legal or equitable in nature. Because we conclude that the release payment is *in substance* compensatory relief for TCL's past patent infringing activity, we hold that Ericsson was entitled to a jury trial on the calculation of the release payment amount, and that the district court deprived Ericsson of that right by determining that legal relief in a bench trial. For the reasons explained below, we vacate-in-part, reverse-in-part, and remand for further proceedings consistent with this opinion.

BACKGROUND

Standards promote interoperability of different devices through the use of the same protocol. Patents declared to be essential to practicing a standard are often referred to as SEPs. This case involves a portfolio of SEPs owned by Ericsson incorporated into 2G, 3G, and 4G standards that enable mobile devices from different manufacturers and different networks to communicate with each other using the same communication protocol.

A. ETSI and the FRAND Obligation

Ericsson is a member of the European Telecommunications Standards Institute (ETSI), which is the international standard-setting organization responsible for developing 2G, 3G, and 4G standards. For a patent to become essential to an ETSI standard, ETSI members first submit declarations identifying which of their patents or applications may become essential to the standard. ETSI's acceptance of a member's patent as an SEP forms a contract between ETSI and its members. Together, the 2G, 3G, and 4G standards incorporate the technologies claimed by thousands of SEPs, including over one hundred owned by Ericsson.

Because interoperability requires the practice of these standards, owners of such SEPs wield significant power over implementers during licensing negotiations. To offset this power imbalance and promote interoperability, the contract imposes an obligation to license, referred to here as the "FRAND obligation," on ETSI members. J.A. 35. As defined by § 6.1 of the ETSI Intellectual Property Rights Policy, this obligation requires members to be "prepared to grant irrevocable licenses" to implement their SEPs on FRAND terms and conditions to implementers. J.A. 36. Because this obligation is intended to benefit implementers of ETSI standards, the implementers may assert their rights created by the FRAND obligation as third-party beneficiaries. *Id.*

TCL manufactures mobile devices that implement these ETSI standards so that they may interoperate in the mobile communications environment. As a member of ETSI, Ericsson is bound by its contractual FRAND obligation to ETSI to be prepared to offer TCL FRAND-complaint terms to license its SEP portfolio.

B. Licensing Negotiations

The parties have been negotiating licensing terms for over a decade. In 2007, TCL and Ericsson entered into 2G licenses with seven-year terms. TCL did not sell a meaningful volume of 3G phones until 2011, when the two parties began to negotiate a 3G license in earnest. In 2012, while the parties were negotiating, Ericsson initiated a series of foreign litigations against TCL for alleged infringement of Ericsson's SEPs in six different jurisdictions (France, United Kingdom, Brazil, Russia, Argentina, and Germany). In 2013, TCL began selling 4G phones, and the parties began negotiating a license covering Ericsson's 4G SEPs. That year, Ericsson offered 4G rates to TCL for the first time. But TCL did not consider any of Ericsson's offers or counteroffers to be on FRAND terms. In a 2014 meeting, Ericsson made a license offer that TCL stated "look[ed] promising." J.A. 31.

Before the parties reached agreement, TCL filed a declaratory judgment action against Ericsson in the Central District of California. This was filed right before TCL's 2G licenses with Ericsson were set to expire. J.A. 32. When negotiations finally failed, the parties agreed to engage in a binding court adjudication of terms for a worldwide portfolio license. J.A. 32. The adjudication of these terms is the subject of this appeal.

PROCEDURAL HISTORY

The case below is a consolidation of two district court actions. The first action was initiated by TCL in March 2014, when it filed suit against Ericsson in the Central District of California (the California Action). The second action followed in June 2014, when Ericsson filed suit against TCL in the Eastern District of Texas (the Texas Action).

In the California Action, TCL sought declaratory judgment that Ericsson had failed to offer a FRAND rate to TCL. J.A. 469. In its prayer for relief, TCL requested that the court "[d]etermine the FRAND rates that TCL is entitled to," "[d]ecree that Ericsson has not offered [FRAND] royalties to TCL," and "[d]ecree that TCL is entitled to license from Ericsson any and all [SEPs] under [FRAND] terms and conditions." J.A. 683. TCL also sought damages for infringement of its own patents, as well as various state law claims based on Ericsson's contractual FRAND obligation with ETSI (e.g., breach of contract, promissory estoppel, violation of California Unfair Competition Law). J.A. 641.

In the Texas Action, Ericsson sought damages for infringement of two individually-asserted SEPs, U.S. Patent No. 6,301,556 and U.S. Patent No. 6,473,506, for which TCL filed counterclaims of invalidity and non-infringement (collectively, Ericsson's patent infringement claims and TCL's related counterclaims of invalidity and non-infringement). Ericsson further requested that the court declare "that [it] complied with its FRAND commitments … or, alternatively, adjudge and declare what steps would be required for Ericsson to achieve such compliance." J.A. 60828.

The two Actions were consolidated in June 2015 when the Texas Action was transferred to the Central District of California. The same day, the court granted TCL's motion to enjoin Ericsson "from further prosecuting any actions alleging infringement of its 2G, 3G, and 4G patents until the FRAND issues are resolved" in the Central District of California. J.A. 32–33 (referring to J.A. 4687).

A. Ericsson's Proposed License Offers to TCL

The court ordered the parties to provide contentions defining the contents of a FRAND license. J.A. 131713. In response, Ericsson proposed two alternative license offers, "Option A" and "Option B," in its contentions. J.A. 2718–78; J.A. 4795–857. Eventually, the court ruled that the FRAND determination would be made in reference to Ericsson's Option A and B offers. J.A. 38768–70.

Option A proposed a lump-sum payment with percentage running royalties. Under Option A for mobile phones, TCL would make an annual payment of $30 million for its first $3 billion in sales, with percentage running royalty rates for additional sales. These running royalty rates were 0.8% of the net selling price for phones with 2G GSM/GPRS, 1.1% for phones with 2G EDGE, 1.5% for 3G devices, and 2.0% for 4G devices.

Option B proposed only running royalties with caps and floors. Under Option B for mobile phones, TCL would pay percentage running rates as follows: 0.8% of the net selling price of 2G/GSM/GPRS, 1.0% for 2G EDGE, 1.2% for 3G, and 1.5% for 4G with a $2.00 floor and a $4.50 cap.

In both options, Ericsson proposed a "release payment" for "TCL's past unlicensed sales." J.A. 33. Both parties agreed that the release payment would be part of the court-ordered FRAND license. J.A. 131911.

B. Discussion of Jury Trial Issues

In January 2015, the parties filed a joint report stipulating to various agreements and understandings about which issues should be decided by a jury. At the time, both legal and equitable claims were still active. TCL's damages claim for breach of contract was legal. TCL's claim for the court to set a prospective FRAND rate for the license was equitable. These two claims shared a common issue: whether Ericsson's licensing offer complied with its FRAND obligations. J.A. 1893–94. Under *Dairy Queen, Inc. v. Wood*, 369 U.S. 469, 472–73 (1962), legal claims must be tried first to a jury where they share common issues with equitable claims. Thus, the parties agreed to a two-step approach: (1) a jury would decide the common issue of whether Ericsson's offer complied with its FRAND obligation, and (2) if the jury answered no, a bench trial would be conducted to revise terms in the offer to be compliant with FRAND. J.A. 1892–934.

By mid-August 2016, all of TCL's claims and counterclaims seeking damages had been dismissed or were no longer viable in view of other motions.[1] However, Ericsson's counterclaims seeking damages for patent infringement, which had been stayed by the court, still remained.

While Ericsson acknowledged that the claims and counterclaims remaining for adjudication in the upcoming trial only sought specific performance or declaratory judgment as remedies, it insisted that a jury trial was required. According to Ericsson, the release payment term, which was "money for [TCL's] past patent infringement," was "decidedly legal" and thus entitled "Ericsson to a jury on all asserted claims." J.A. 38827–28. The court disagreed. In a January 2017 final pretrial conference order, the court acknowledged Ericsson's assertions of its jury trial right but indicated that it had nevertheless decided to proceed with a bench trial. J.A. 48694. On the day of trial, right before the first witness was called, Ericsson renewed its objection, noting for the record that it had not "waived [its] right to a jury trial." J.A. 51642.

C. Bench Trial

On February 14, 2017, the court commenced a ten-day bench trial. To assist the court in determining whether Ericsson's alternative offers were FRAND, the parties proposed different methodologies for com-

[1] On August 8, 2016, the court granted Ericsson's motion for partial summary judgment as to no damages for TCL's state law claims of breach of contract, promissory estoppel, and violation of California's Unfair Competition Law, finding that "TCL ha[d] failed to satisfy its burden on summary judgment to come forward with admissible evidence to create a triable issue of fact on damages." J.A. 38805.

puting FRAND rates. While the parties' competing methodologies sought to estimate the incremental value that Ericsson's SEPs added to the relevant standard, they did so in different ways.

1. TCL's "Top-Down" Implementation

TCL proposed a "top-down" approach "which begins with an aggregate royalty for all patents encompassed in a standard" and "then determines a firm's portion of that aggregate." J.A. 29. In other words, this approach is "top-down" because it starts by determining the value of the whole royalty pie corresponding to a given standard (e.g., 2G, 3G, 4G) and then determines Ericsson's slice of the pie for that standard.

To determine the maximum aggregate royalty assigned to each standard, TCL relied on Ericsson's own public statements about what that ceiling rate should be. Ericsson made these statements prior to ETSI's adoption of each standard. For example, in 2008, Ericsson indicated on its website that it believed the "reasonable maximum aggregate royalty level" for the then-upcoming LTE standard to be "6–8% for handsets." J.A. 48.

TCL's top-down approach computed a different FRAND rate for licensing Ericsson's SEP portfolio for each standard based on the following general equation:

FRAND royalty rate

= (maximum aggregate royalty rate)
× (Ericsson's proportional share)
× (adjustment factors)

For each standard, Ericsson's proportional share was computed by dividing the number of SEPs owned by Ericsson (numerator) by the total number of SEPs in that standard (denominator). The proportional share was then adjusted by various factors, such as "importance and contribution of each patent family," to account for the "relative strength" of Ericsson's SEPs compared to other SEPs in a particular standard. J.A. 41–42, 64–66. According to TCL's top-down methodology, the rates proposed in Ericsson's Option A and Option B were not FRAND-compliant because they substantially exceeded the FRAND rates yielded from the top-down approach.

2. Ericsson's Proposed Approach

Ericsson did not offer its own version of a top-down approach. Rather, to show that the royalty rates it offered to TCL in Options A and B satisfied FRAND, it presented evidence of (1) existing licenses it had negotiated with other implementers and those it had prepared for the purposes of business cases and (2) rates produced from an alternative methodology that sought to measure in absolute terms the value which Ericsson's patents added to 4G products.[2]

3. "Comparable" Licenses

The parties disputed how "comparable" the existing licenses actually were to those that would be offered to TCL in a hypothetical negotiation. The parties agreed that four firms were similarly situated to TCL (Huawei, LG, HTC, ZTE), but they disagreed on

[2] Dubbed the "ex-Standard" approach by Ericsson's experts, this evidence was not comprehensive, because it was limited to estimating the value of Ericsson's SEPs incorporated into the *4G* standard only. We do not discuss this approach in detail, because its analysis was entirely rejected by the court as "lack[ing] fundamental credibility," J.A. 79, and Ericsson does not dispute that rejection on appeal.

whether four others (Apple, Samsung, Coolpad, Karbonn) were similarly situated to TCL. J.A. 83.

BENCH TRIAL DECISION

Following the bench trial, the court issued a lengthy decision setting forth terms for a binding worldwide license to Ericsson's 2G, 3G, and 4G SEPs. The court amended this decision in an Amended Memorandum of Findings of Fact and Conclusions of Law on March 9, 2018 ("bench trial decision"), which is the subject of this appeal. J.A. 27–141.

Over Ericsson's repeated assertions of its jury trial right, the court explained in a single sentence that it had decided to proceed with a bench trial after it "ruled that TCL's remaining claims were equitable." J.A. 34–35. The court did not address Ericsson's argument about the legal nature of the release payment remedy.

The court articulated a two-step framework agreed upon by the parties for resolving the remaining issues. At the first step, the court determined whether Ericsson's final offers proposed prior to trial satisfied FRAND. J.A. 28.[3] If the court answered no, it would proceed to the second step, where it would supply the material FRAND terms. J.A. 28–29.

A. Step 1: The court concludes that Ericsson's offers did not satisfy FRAND.

To determine whether Ericsson's offers were FRAND, the court first turned to the different rates produced by the two parties' methodologies. The court

[3] As part of this inquiry, the court first determined whether Ericsson complied with its "FRAND obligation" by negotiating with TCL in good faith. The court answered this in the affirmative, J.A. 29, and TCL does not dispute that finding on appeal.

did not accept either party's proposed rates because it found their methodologies to be flawed. Instead, the court devised its own version of the top-down method to determine a "fair and reasonable" rate under FRAND. It then compared Ericsson's proposed offers to comparable licenses to determine whether they were "non-discriminatory' under the third element of FRAND. Based on these two approaches, it concluded that "Ericsson's offers are not fair and reasonable, and are discriminatory." J.A. 139.

1. *The court uses its own modified version of TCL's top-down approach to determine whether Ericsson's offers are "fair and reasonable" under FRAND.*

First, while the court noted that the top-down method was "not necessarily a substitute for a market-based approach that considers comparable licenses," J.A. 41, it described the unique benefits of using a top-down approach to mitigate two main risks that arise in the SEP licensing context.

One risk is royalty stacking. As the court explained, "[s]tacking occurs when each individual SEP holder demands a royalty which when totaled exceeds the value of all the SEPs in a standard." J.A. 41. Because the top-down approach computes the FRAND rate for a particular SEP or SEP portfolio by starting with the maximum aggregate royalty burden, reasoned the court, "it avoid[s] the possibility that licensees will be forced to pay an unreasonable amount in total." *Id.*

Another risk is patent owner hold-up. This occurs when a patent-owner seeks to extract excessive value from its SEPs after the implementer is "locked-in" to using the standard. Regardless of the value contributed to the standard by the SEP, the implementer must practice the SEP in order to practice the whole standard. Because the top-down approach limits the overall size of the royalty pie, the court reasoned that the top-down approach "can also prevent hold-up" because it "prevents SEP owners from charging a premium for the value added by standardization." *Id.*

Second, while the court found "fatal flaws" with TCL's analysis of the relative "importance and contribution" of Ericsson's SEP portfolio compared to that of the other SEPs in the relevant standards, the court still found "some value in the technical analysis, particularly to show that Ericsson's patent portfolio is certainly not as strong or essential as it has claimed." J.A. 69. Thus, it "use[d] this finding in part to assist it in determining the final FRAND rate." *Id.* Specifically, the court substituted its own values for the importance and contribution values calculated by TCL's experts, adopting a "simple patent counting system which treats every patent [incorporated in the standard] as possessing identical value, and then applies the numbers that it found reliable from the analyses provided by TCL's experts." J.A. 42–43.

Though the court admitted that it had "some reservations about the top down analysis," it determined that there was "no basis to reconcile the results" of its own modified version of the top-down methodology with the substantially higher rates proposed in Option A or Option B. J.A. 72–75. The court therefore concluded that Ericsson's offers were not fair and reasonable. J.A. 75.

2. *The court uses comparable licenses to determine whether Ericsson's offers are "non-discriminatory" under FRAND.*

The court only used licenses of similarly situated licensees to determine whether Ericsson's offers were non-discriminatory. First, the court determined which licensees were "similarly situated" to TCL such that their licenses would serve as "comparable" points of comparison. J.A. 82. The parties agreed that four firms were similarly situated to TCL: Huawei, LG, HTC, and ZTE. J.A. 83. But they disputed whether four others (Apple, Samsung, Coolpad, Karbonn) were also similarly situated to TCL. Ultimately, the court resolved the dispute based on geographic scope, agreeing with TCL that global firms such as Apple and Samsung were similarly situated to TCL (which is also a global firm) but that "local kings" such as Coolpad (whose market is primarily in China) and Karbonn (whose market is primarily India) were not. J.A. 84–85. Thus, the court concluded that the following six firms were similarly situated: Apple, Samsung, LG, HTC, Huawei, and ZTE. J.A. 84.

Second, relying on expert evidence, the court unpacked the six "similarly situated" licenses and Ericsson's offers to an effective per-unit royalty rate so that they could be compared to each other on a "common basis." J.A. 80. In determining what form this common basis would take, the court rejected a dollar-per-unit rate in favor of a pure "per-centage royalties without caps or floors." J.A. 94–95.

Finally, the court compared the unpacked effective royalty rates from the comparable licenses to those proposed in Ericsson's offers and concluded that Ericsson's offers were discriminatory because the unpacked effective royalty rates of Option A and Option B were "radically divergent from rates which Ericsson agreed to accept from licensees similarly situated to TCL." J.A. 120. Moreover, the court added that "Ericsson's use of floors in its rates is itself discriminatory." J.A. 139. "In the absence of a credible showing that Ericsson's SEPs add a measurable incremental value," explained the court, "there is no basis for essentially discriminating on the basis of the average selling price where a floor would result in a higher effective rate for lower price phones." *Id.*

B. Step 2: The court sets prospective and retrospective FRAND rates in the license.

At the second step of the two-step framework, the court relied on its FRAND analysis in the first step to supply FRAND terms of the binding license. These terms included (1) a prospective FRAND rate for TCL's future licensed practice of Ericsson's SEPs and (2) a cumulative release payment for TCL's past unlicensed practice of Ericsson's SEPs. This release payment was calculated based on a retrospective FRAND rate that was closely related to the prospective FRAND rate computed by the court.

To compute the ongoing FRAND royalty rate, the court began by "looking at the combination of rates derived from the top down and comparable license analyses." J.A. 120. The court ultimately set a FRAND royalty rate that generally fell within the range of rates produced by those two approaches where appropriate.[4] J.A. 130.

The court used this first FRAND rate to compute the second "release payment" term. Specifically, the court computed the retrospective FRAND rate by discounting the ongoing FRAND royalty for present value

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[4] Because the court "could not reliably unpack 2G rates from any comparable license," it adopted the rate produced by the top-down approach. J.A. 129.

and potential royalty stacking to arrive at a cumulative release payment to compensate Ericsson for TCL's patent infringement. J.A. 130–33.

Pursuant to the bench trial decision, the court issued an Amended Final Judgment and Injunction, ordering that Ericsson's patent infringement claims[5] and TCL's related counterclaims of invalidity and non-infringement be "dismissed without prejudice because they are moot in light of the equitable relief granted in the release payment." J.A. 24. Specifically, the court ordered Ericsson to "release TCL and all customers of TCL who have purchased or used products herein licensed to TCL from claims for past patent infringement … ." J.A. 14.

Ericsson filed a timely appeal. Because this appeal involves the dismissal of Ericsson's patent infringement claims, we have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

The district court made four determinations in its bench trial decision that resolution of the issues on appeal will impact. First, it concluded that Ericsson's proposed terms to TCL were not FRAND. Second, the court set a prospective FRAND royalty rate for TCL's future use of Ericsson's SEPs, relying on a combination of methodologies, including its own modified version of TCL's proposed top-down approach and comparable licenses. Third, the court set a "release payment for TCL's past unlicensed sales" by adjusting its calculated prospective FRAND royalty rate. J.A. 33. The two

[5] These refer to the patent infringement claims that Ericsson originally filed in the Texas Action prior to consolidation with the California Action.

rates computed in the second and third determinations were imposed in a court-ordered license agreement by which the parties had agreed to be bound prior to the bench trial. Fourth, the district court ordered the dismissal of Ericsson's patent infringement claims and TCL's related counterclaims of invalidity and non-infringement as moot in light of the relief granted in the release payment, because any damages amount from those infringement claims were already subsumed in the release payment determination.

On appeal, Ericsson argues that all four determinations are erroneous for two main reasons: (1) they at least in part should have been determined by a jury, not the bench,[6] and (2) they were premised on various errors in the court's FRAND analysis.[7] Because the

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[6] On appeal, Ericsson presents three independent reasons why it was deprived of its right to a jury trial under the Seventh Amendment: (1) the declaratory judgment action tried by the court was an inverted patent infringement suit, which entitled Ericsson to a jury trial; (2) the court resolved common issues that are typically litigated in patent infringement suits for damages (e.g., determining which licenses are comparable, weighing expert credibility, and assessing various data points to rule that Ericsson's offers were not FRAND) prior to adjudicating the remaining equitable claims, thereby depriving Ericsson of its right to a jury trial on the legal issues; and (3) by adjudicating the release payment amount that was retrospective monetary compensation for past wrongs, the court improperly determined legal relief without a jury. Because we conclude that the third reason is in itself sufficient to overturn all of the court's rulings below, we do not address Ericsson's other two alleged reasons.

[7] Ericsson's appeal primarily focuses on three arguments. First, it argues that the court erred in determining royalty rates that were "reasonable" because it employed a "simple counting method" that allegedly presumed each of Ericsson's SEPs to possess equal value with all other SEPs in a standard, instead of measuring the incremental value that each patent added to the

first reason is sufficient to overturn all four determinations, we turn first to that issue in this opinion.

For reasons discussed below, we agree with Ericsson's first point.[8] Because we conclude that the release payment is in substance compensatory relief for TCL's past wrongs (i.e., practicing Ericsson's patented technologies without a license), we hold that the district court deprived Ericsson of its constitutional right to a jury trial on that legal relief by requiring that Ericsson adjudicate that relief in a bench trial.

A. Ericsson's Right to a Jury Trial

We review "the constitutional question of whether a party is entitled to a jury trial" de novo. *Tegal Corp. v. Tokyo Electron Am., Inc.*, 257 F.3d 1331, 1339 (Fed. Cir. 2001).

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standard. Second, Ericsson argues that the court employed an unreliable methodology to compute Ericsson's "proportional share" of the maximum aggregate royalty of all SEPs in each standard because it used wildly divergent approaches to calculate the numerator and denominator, resulting in under-compensation to Ericsson. Third, Ericsson argues that the court's treatment of comparable licenses was fundamentally flawed because, among other reasons, it rejected dollar-per-unit royalty rates as per se discriminatory without pointing to any legal authority.

[8] As Ericsson confirmed during oral argument, we need not reach any of its arguments challenging the district court's FRAND analysis if we conclude that the district court violated Ericsson's right to a jury trial. *See* Oral Arg. at 16:56–17:46. In light of our disposition vacating the district court's FRAND analysis and remanding for the jury to decide in the first instance, we do not address Ericsson's other challenges to the district court's opinion. *See, e.g.*, *Honeywell Int'l Inc. v. Hamilton Sundstrand Corp.*, 370 F.3d 1131, 1144 (Fed. Cir. 2004) (vacating the infringement judgment and not addressing the challenges to the district court's rulings limiting damages).

The Seventh Amendment provides that, "[i]n Suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved … ." U.S. CONST. amend. VII. The Supreme Court has interpreted "Suits at common law" to refer to actions that are "analogous" to 18th-century suits brought in the English courts of *law* prior to the Amendment's adoption. *Tull v. United States*, 481 U.S. 412, 417 (1987). This preserved right extends not only to common-law forms of action, but also to causes of action created by congressional enactment. *Id.*

"To determine whether a particular action will resolve legal rights, we examine both the nature of the issues involved and the remedy sought." *Chauffeurs v. Terry*, 494 U.S. 558, 565 (1990). "First, we compare the statutory action to 18th-century actions brought in the courts of England prior to the merger of the courts of law and equity. Second, we examine the remedy sought and determine whether it is legal or equitable in nature." *Tull*, 481 U.S. at 417–18 (internal citations omitted). "The second inquiry is the more important in [this] analysis." *Chauffeurs*, 494 U.S. at 565.

In cases that have "legal and equitable claims," and issues common to both, the court must conduct a jury trial on "any legal issues for which a trial by jury is timely and properly demanded." *Dairy Queen*, 369 U.S. at 472–73. Just as the right to a jury trial on legal claims cannot be denied directly by refusing a jury-trial demand, the right "must not be infringed" indirectly "by trying the legal issues as incidental to the equitable ones or by a court trial of a common issue." *Ross v. Bernhard*, 396 U.S. 531, 537–38 (1970). The "right to a jury trial of legal issues" cannot be "lost through prior determination of equitable claims." *Beacon Theatres, Inc. v. Westover*, 359 U.S. 500, 511 (1959).

In deciding to proceed with a bench trial on all remaining issues in this case, the district court concluded that a jury trial was not necessary because it "ruled that TCL's remaining claims were equitable." J.A. 34–35. On appeal, Ericsson argues that it was deprived of its Seventh Amendment right because the court conducted a bench trial to adjudicate the release payment term, which is legal relief. We agree.

1. The release payment provides legal relief.

The parties dispute whether the relief provided by the release payment is legal or equitable. Ericsson focuses on the *substance* of the relief, arguing that the release payment is legal because it is compensation for TCL's past patent infringement of Ericsson's SEPs. Appellants' Br. at 35–37. TCL, on the other hand, argues that the release payment is equitable based on the *form* the relief takes. As a term included in an injunction order, TCL argues that the release payment constitutes specific performance for a term in a contract. Appellees' Br. at 19. TCL also separately argues that the release payment is equitable because it was ordered as restitution for TCL's past unlicensed sales. *Id.* at 26–27. According to TCL, the release payment was a "way to retroactively restore to Ericsson that which it would have already received if the FRAND terms and conditions had previously been set, and a license not delayed." *Id.* at 27.

That the release payment was ordered in the form of an injunction does not necessarily make it equitable. *See, e.g., Great-West Life & Annuity Ins. Co. v. Knudson*, 534 U.S. 204, 208, 214 (2002) (holding an injunction ordering money funds to be legal relief because it sought to "impo[se] personal liability for the benefits that they conferred upon respondents"). Nor is the monetary nature of the release payment dispositive of legal relief. *See, e.g.*, *Bowen v. Massachusetts*, 487 U.S. 879, 893 (1988) (holding that monetary relief was equitable because it sought reimbursement to which the State was allegedly already entitled, rather than money in compensation for losses suffered); *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1315–16 (Fed. Cir. 2007) (holding that the court did not violate patent owner's right to a jury trial by calculating an "ongoing royalty rate" for patent infringement in a bench trial). Indeed, not all payments of money constitute legal "damages." *Paice*, 504 F.3d at 1316. And even if the monetary relief can be characterized as restitution, as TCL advocates here, that does not end the inquiry, because restitution can be either legal or equitable. *Great-West Life*, 534 U.S. at 212 ("In the days of the divided bench, restitution was available in certain cases at law, and in certain others in equity."). To determine which type of common law restitution the release payment is more analogous to, we focus on "the basis of [Ericsson's] claim" and "the nature of the underlying remedies sought." *See id.* at 213.

We agree with Ericsson that the release payment term is legal in nature and thus entitled to a jury trial determination. Ericsson's offers to TCL refer to the release payment term as "release payment for past unlicensed sales," but the court consistently treated this payment as retrospective compensation for TCL's past patent infringement. It is a "well-settled principle that jury trials are available for damages for patent infringement." 9 C. Wright & A. Miller, Federal Practice And Procedure § 2312 (3d ed. 2018); *see also Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 377 (1996) (analogizing "today's patent infringement action" to "the infringement actions tried at law in the 18th century," which "must be tried to a jury").

For example, in its bench trial decision, the court defined the function of the release payment as compensation, explaining that both of Ericsson's offers "specify a release payment intended to *compensate* Ericsson for TCL's unlicensed use of Ericsson's SEPs … ." J.A. 33 (emphasis added). In its March 9, 2018 Amended Final Judgment and Injunction, which was subject to both parties' review, the court elaborated that the compensatory relief was for past patent infringement. It ordered: "Upon the receipt by Ericsson of the release payments set forth in Clause E by TCL, Ericsson shall release TCL … from claims for *past patent infringement* … ." J.A. 14 (emphasis added). Most tellingly, the court dismissed Ericsson's counterclaims of patent infringement as moot in light of the release payment. J.A. 23. Thus, the court's own actions confirm that the release payment functions as a substitute for patent infringement damages.[9]

TCL's attempt to recharacterize the release payment as restitution for "TCL's past unlicensed sales" is unavailing because it improperly focuses on the form of the relief, rather than its underlying substance. As the Supreme Court has explained, "for restitution to lie in

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[9] In dismissing Ericsson's patent infringement claims and TCL's related counterclaims of invalidity and non-infringement, the court explained that they were "moot in light of the *equitable relief granted in the release payment*." J.A. 24 (emphasis added). The court's label of "equitable relief" does not impact our conclusion that the release payment is *in substance* compensation for past patent infringement for the reasons discussed in this opinion, especially since the court itself characterized the release payment as releasing TCL from "claims for past infringement" in the same order. J.A. 14.

equity, the action generally must seek not to impose personal liability on the defendant, but to restore to the plaintiff particular funds or property in the defendant's possession." *Great-West Life*, 534 U.S. at 214. In contrast, if the basis of the release payment is to provide a "substitute" remedy for "benefits" conferred to TCL, then the claim is legal. *See Bowen*, 487 U.S. at 895 ("Damages are given to the plaintiff to substitute for a suffered loss, whereas specific remedies 'are not substitute remedies at all, but attempt to give the plaintiff the very thing to which he was entitled.'") (internal citations omitted); *see also Great-West Life*, 534 U.S. at 214 ("The basis for petitioners' claim is … that petitioners are contractually entitled to some funds for benefits that they conferred. The kind of restitution that petitioners seek, therefore, is not equitable … but legal—the imposition of personal liability for the benefits that they conferred upon respondents.").

Here, the "basis" of the release payment is not that TCL holds "particular funds" that a court could then restore to the possession of its "true owner," Ericsson. *See Great-West Life*, 534 U.S. at 213–14. Nor is it a "reimbursement" of funds to which Ericsson was already entitled, akin to the equitable relief in *Bowen*. *See* 487 U.S. at 895. Rather, as payment for "TCL's past unlicensed sales," the release payment seeks to estimate the benefits conferred to TCL from selling products that practiced Ericsson's SEPs without a license. *See Great-West Life*, 534 U.S. at 214. And given that TCL does not dispute infringement of Ericsson's SEPs,[10] it is hard to see how a payment for TCL's past unlicensed

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[10] Indeed, TCL alleged that its products "complied" with the 2G, 3G, and 4G standards, J.A. 444 ¶ 3, and conceded that Ericsson's SEP families were "essential" to those standards. J.A. 63.

sales is in substance materially different from damages for past patent infringement.

At bottom, regardless of whether we characterize the release payment term as compensation for "past patent infringement" or restitution for "TCL's past unlicensed sales," the underlying nature of the relief is legal. Accordingly, we conclude that Ericsson was entitled to a jury trial on the determination of the release payment amount under the Seventh Amendment.

2. Ericsson did not waive its right to a jury trial on the release payment term.

TCL suggests that Ericsson waived its right to a jury trial by consenting to a bench trial on the release payment term. Appellees' Br. at 16. In support, TCL points to a single statement made by Ericsson in its August 15, 2016 response to TCL's ninth set of interrogatories. *Id.* Therein, Ericsson stated: "The release payment that TCL owes Ericsson for its past unlicensed sales of 2G, 3G, and 4G devices will be determined by the Court at the conclusion of this litigation." J.A. 38867.

When read in context of the record as a whole, we decline to interpret this isolated statement as a waiver of Ericsson's constitutional right, because the more reasonable reading is to view this statement as conditioned upon an initial jury determination of whether Ericsson's offers were FRAND. *See Aetna Ins. Co. v. Kennedy*, 301 U.S. 389, 393 (1937) ("[A]s the right of jury trial is fundamental, courts indulge every reasonable presumption against waiver.").

On January 20, 2015, the parties filed a joint report agreeing to a two-stage adjudication process where: (1) the jury would decide whether Ericsson's offers were

FRAND and (2) if not, the court would conform the offer terms to be compliant with FRAND. J.A. 1892. As the joint report explained, the reason why the jury had to decide the first issue was because that issue was the "key factual dispute underlying all of" the legal (e.g., "money damages") and equitable claims that were then live in the case. *Id.* Because *Dairy Queen* requires common issues to legal and equitable claims to be tried to a jury first, the parties stipulated that this common issue "must therefore be decided by a jury." *Id.*

Admittedly, TCL's claims and counterclaims seeking damages (e.g., infringement of its own patents, breach of contract) had been dismissed by the time Ericsson filed its interrogatory response. Because the parties' original reason for requiring a jury determination no longer existed, TCL argues that the court properly decided the case in a bench trial consistent with the rationale underlying the stipulated plan. Appellees' Br. at 17–18.

We are unpersuaded. Just because the originally articulated basis for requiring a jury disappeared does not mean that Ericsson waived its jury trial right resting on other bases. Indeed, on August 15, 2016, Ericsson filed a "court-requested submission regarding remaining claims and requirement of a jury trial," Ericsson explicitly identified the "release payment" term as an alternative basis for a jury trial:

> [T]he nature of the remedy sought by the parties—a binding payment obligation that requires TCL to pay royalties to Ericsson on a going forward basis and to make a *release payment of money for its past patent infringement—entitles Ericsson to a jury on all asserted claims … . The nature of this binding*

> *payment obligation, i.e., the payment of money as compensation to Ericsson for past and future infringement by TCL, is decidedly legal.* But even if the remedy was a mix of equitable and legal remedies, the legal remedies sought confer a jury trial right.

J.A. 38827–33 (emphases added). Notably, this submission was filed on the same day Ericsson filed its interrogatory response upon which TCL relies on as a waiver.

Even the court did not treat Ericsson as having waived its jury trial right. In a January 30, 2017 final pre-trial conference order, the court explicitly acknowledged that "Ericsson has requested a jury trial of all issues" and that it "overruled Ericsson's request for a jury trial of all issues, which request Ericsson hereby preserves." J.A. 48694 (internal citation omitted). Ericsson renewed its objection to the bench trial right before it commenced:

> Your Honor, just an administrative point. Ericsson just wants to make a non-waiver point. Of course, we're proceeding with the bench trial. We don't want to be deemed to have made an election or to have waived our right to a jury trial as reflected in our earlier motion which was denied.

J.A. 51642. In light of the record as a whole, we reject TCL's contention that Ericsson waived its jury trial right.

CONCLUSION

For the foregoing reasons, we hold that the district court deprived Ericsson of its Seventh Amendment right to a jury trial by deciding the legal relief of a release payment for past unlicensed sales in a bench trial. We have considered the parties' remaining arguments and find them unpersuasive.

Accordingly, we vacate the district court's determination of the release payment, including the underlying question of whether Ericsson's Option A and Option B offers that include the release payment term are FRAND. We also vacate the court's determination that Ericsson's offers are not FRAND and its determination of prospective FRAND royalty rates because both determinations were predicated on common issues to the improperly decided release payment. Because the release payment will be redecided by the jury, we reverse the dismissal of Ericsson's patent infringement claims and TCL's related counterclaims of invalidity and non-infringement as no longer moot. Finally, we remand all above determinations for further proceedings consistent with this opinion.

VACATED-IN-PART, REVERSED-IN-PART, AND REMANDED

APPENDIX B

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

Case No. 8:14-CV-00341 JVS-DFMx
Case No. 2:15-CV-02370 JVS-DFMx

TCL COMMUNICATION TECHNOLOGY HOLDINGS, LTD., *ET AL.*,
Plaintiffs/Counterclaim-Defendants,
v.

TELEFONAKTIEBOLAGET LM ERICSSON, *ET AL.*,
Defendants/Counterclaim-Plaintiffs.

v.

ERICSSON INC., *ET AL.*,
Plaintiffs/Counterclaim-Defendants,
v.

TCL COMMUNICATION TECHNOLOGY HOLDINGS, LTD., *ET AL.*,
Defendants/Counterclaim-Plaintiffs.

Filed March 9, 2018
Hon. James V. Selna

AMENDED FINAL JUDGMENT AND INJUNCTION

In this consolidated action, Plaintiffs and Counterclaim Defendants TCL Communication Technology

Holdings Ltd., TCT Mobile (US) Inc., and TCT Mobile Limited (collectively, "TCL") brought claims and counterclaims against Defendants and Counterclaim Plaintiffs Telefonaktiebolaget LM Ericsson and Ericsson Inc. (together, "Ericsson") for breach of contract; promissory estoppel; declaratory judgment; fraudulent misrepresentation; negligent misrepresentation; and violation of the California Unfair Competition Law (the "UCL"); declaratory judgment of non-infringement of U.S. Patent No. 6,301,556 (the "'556 patent"); declaratory judgment of invalidity of the '556 patent; declaratory judgment of noninfringement of U.S. Patent No. 6,473,506 (the "'506 patent"); declaratory judgment of invalidity of the '506 patent; infringement of U.S. Patent No. 7,778,340 (the "'340 patent"); and infringement of U.S. Patent No. 7,359,718 (the "'718 patent").

Ericsson brought claims and counterclaims against TCL for breach of the obligation to negotiate in good faith and promissory estoppel, and claims for infringement of the '556 patent; infringement of the '506 patent; declaratory judgment; declaratory judgment for non-infringement of the '340 patent; declaratory judgment of invalidity of the '340 patent; declaratory judgment of non-infringement of the '718 patent; and declaratory judgment of invalidity of the '718 patent.

On July 1, 2015, the Court stayed the parties' claims and counterclaims relating to Ericsson's '556 and '506 patents until further Order of the Court (Dkt. 281).

On July 24, 2015, the Court dismissed the parties' claims and counterclaims relating to TCL's '340 and '718 patents without prejudice (Dkt. 289).

On June 17, 2016, the Court dismissed TCL's claims and counterclaims for fraudulent misrepresentation and negligent misrepresentation with prejudice (Dkt. 838).

On June 17, 2016, the Court dismissed Ericsson's counterclaims for breach of the obligation to negotiate in good faith and promissory estoppel with prejudice (Dkt. 838).

On August 9, 2016, the Court granted Ericsson's motion for partial summary judgment of no damages for breach of contract, promissory estoppel, or violation of the UCL (Dkt. 1061), and Ericsson's motion for partial summary judgment as to TCL's claim for violation of the UCL (Dkt. 1058).

The Court conducted a 10-day bench trial commencing on February 14, 2017. Three claims/counterclaims were tried before the Court: (1) TCL's claim/counterclaim for breach of contract seeking specific performance; (2) TCL's claim/counterclaim for declaratory judgment; and (3) Ericsson's claim/counterclaim for declaratory judgment (Dkt. 1376-1). The Court received evidence in the form of exhibits, designated portions of deposition transcripts, and witness testimony.

In its Memorandum of Findings of Fact and Conclusions of Law issued on November 8, 2017 (Dkt. 1778), the Court found that Ericsson's Option A and B offers were not fair and reasonable, and were discriminatory, and thereafter determined FRAND royalty rates for a license to TCL under Ericsson's 2G, 3G, and 4G standard essential patent portfolios.

Consistent with the Court's Memorandum of Findings of Fact and Conclusions of Law (Dkt. 1778), and based on the record established in this case, the Court enters this Final Judgment and Injunction pursuant to Federal Rule of Civil Procedure 58.

DEFINITIONS

For the purpose of this Final Judgment and Injunction, the following definitions shall apply:

1. "Affiliate" of a Party means a company or other legal entity which is controlled by the Party. For the purpose of this definition, "control" shall mean direct or indirect ownership of more than fifty percent (50%) of the voting power, capital, or other securities of the controlled or commonly controlled entity.

2. "Brand Company" means a company or other legal entity, other than a Network Operator, which is active in the consumer electronics business and/or wireless communications business and/or IT industry.

3. "Components" means any item of equipment, including, for example, a subsystem, sub-assembly or component, in software, hardware, and/or firmware form, of any TCL Product, which is sold, licensed, or supplied, or intended to be sold, licensed, or supplied, to a Third Party other than as a complete and ready to use end-use item, for example, because it requires additional industrial, manufacturing, or assembly processes before being used or sold as an end-use item, and is intended for incorporation into any product. Examples of Components include, but are by no means limited to, platforms, ASICs and chipsets, modules, printed circuit boards, integrated circuits, semiconductor devices, processors, multi-core processors, multi-chip modules, and multichip packages, embedded modules and core engines. This definition of "Components" shall exclude any product employed for the purpose of re-

pair or upgrade of already sold products which are licensed under this Injunction.

4. "Consumer" means a natural person who buys products as a final user.

5. "Costs of Insurance and Transportation" means TCL's, as the case may be, actual direct costs of insurance and transportation to ship TCL Products to its customers. For the avoidance of doubt, Costs of Insurance and Transportation shall not include any labor fee or any overhead costs of any kind.

6. "Effective Date" means the date of entry of this Final Judgment and Injunction.

7. "End User Terminal" means a complete and ready to use device or Knocked Down version of such complete device with the largest of the width, length, and depth of such complete device in its most compact form being 250 mm or less, which can be directly used by a Consumer for wireless communications (*i.e.* to receive and transmit information over the air by means of using one or more of the Standards), without the device having to be integrated or embedded into another device or connected to another device through, for example, a USB, PCMCIA, memory card, WLAN, or Bluetooth interface. For the avoidance of all doubt, the term "End User Terminal" does not mean subassemblies or parts of products such as, but not limited to, Components, other than as sold as part of the End User Terminal or as spare parts or repair parts of already Sold End User Terminals. For the further avoidance of doubt, TCL is not required to pay any royalty to Ericsson for such spare parts or repair parts of already Sold End User Terminals.

8. "Entity" means any individual, firm, company, corporation, or other corporate or legal entity (wherever and however incorporated or established), government, state, agency or agency of a state, local or municipal authority or government body or any joint venture, association or partnership (whether or not having a separate legal personality).

9. "Ericsson" means Defendants and Counterclaim Plaintiffs Telefonaktiebolaget LM Ericsson, a company established under the laws of Sweden, with organization number 556016-0680, with its registered office at SE-164 83 Stockholm, Sweden; Ericsson Inc., a Delaware corporation headquartered at 6300 Legacy Drive, Plano, Texas 75024; and all of their Affiliates.

10. "External Modem" means a separate external Consumer device which can be connected to or inserted into an external slot of another device by an individual consumer (*i.e.* not an entity of any kind) through, for example, a USB, PCMCIA, memory card, WiFi, or Bluetooth interface, in order to allow said another device to communicate by means of any or more of the Standards. The External Modem may not be designed for the purpose of being embedded into such other device or may not in itself include an immediate physical user-interface to an individual Consumer to transmit or receive wireless data and/or voice transmissions by means of any or more of the Standards (such a device shall fall under the definition of End User Terminal). The term "External Modem" does not include Components (other than as sold incorporated into the External Modem or sold as part of a kit of External Modem) or modules.

11. "Future Standards" means the agreed protocols by ETSI, ARIS, T1P1, CCSA, and/or other relevant telecommunications standards setting bodies that are applicable to UMB, WiMax IEEE802.16m, and/or any other beyond 4G standards, irrespective of the transmission medium or frequency band, as well as any updates in respect of such protocols.

12. "Have Made" means the right to have a Third Party make a product for the use and benefit of the party exercising the have made right provided all of the following conditions are fulfilled: (a) the party exercising the have made right owns and supplies the designs, specifications and working drawings supplied to such Third Party; and (b) such designs, specifications and working drawings are, complete and sufficient so that no substantial additional design, specification and working drawings are needed by any Third Party; and (c) such Third Party is not allowed to sell such product to other third parties.

13. "Injunction" means the Injunction herein and its appendices.

14. "Knocked Down" means a complete End User Terminal product in the form of complete knocked down or semi-knocked down kits of parts, including complete and substantially complete kits of parts, where such kit of part or knocked down product is always a complete and ready to use End User Terminal.

15. "License Period" means the period commencing on the Effective Date and having a period of five (5) years calculated from the Effective Date.

16. "Licensed Patents" means those Patents (in any country of the world) as to which it is, or is claimed by the owner to be, not possible, on technical grounds taking into account normal technical practice and the state of the art generally available at the time of adoption or publication of the relevant Standards, to make, sell, lease, or otherwise dispose of, repair, use, or operate equipment or methods which comply with the relevant Standards, without infringing such Patents.

17. "Network Operator" means an Entity, including such Entity's Affiliates, that as its main business (a) owns or licenses frequency spectrum, directly or indirectly, from a government or other relevant authority or Entity, and offers wireless data- or telecommunications services to Consumers over such owned or licensed spectrum; and/or (b) offers wired data- or telecommunications services to Consumers.

18. "Net Selling Price" means the greater of (a) the selling price actually obtained for the TCL Product in the form in which it is Sold, and (b) the selling price which a seller would realize from an un-Affiliated buyer in an arm's length sale of an equivalent product in the same quantity and at the same time and place as such Sale, whether or not assembled and without excluding therefrom any components or subassemblies thereof. In determining the "Net Selling Price," only the following shall be excluded to the extent actually included in the selling price obtained for such products: (i) Usual Trade Discounts actually allowed to non-Affiliated persons or entities; (ii) Packing Costs; (iii) Costs of Insurance and Transportation; and (iv) Taxes and Custom Duties. For the avoidance of doubt, al-

lowed deductions for Usual Trade Discounts, Packaging Costs, and Costs of Insurance and Transportation shall in total not exceed eight (8) percent units of the selling price.

19. "Packing Costs" means TCL's, as the case may be, actual direct costs of packing and/or packaging TCL Products for shipment to its customer. For the avoidance of doubt, Packing Costs shall include extra batteries, charger, ear phones, SO card, user manual (in any form including but not limited to CD-ROM), warranty card, USB cable, welcome kit, packing box, labels, protective screen cover, plastic bags, carrying kit and separate additional phone cover case. For the avoidance of doubt, Packing Costs shall not include any labor fee or any overhead costs of any kind.

20. "Party/Parties" means Ericsson and TCL.

21. "Patents" means patent claims (including claims of licensable patent applications), and like statutory rights other than design patents, owned, or controlled by Ericsson at any time during the License Period.

22. "Personal Computer" means a complete and ready to use device, designed mainly for data processing by means of a physical or virtual keyboard, with the largest of the width, length, and depth of such complete device in its most compact form being more than 250 mm, which can be directly used by a Consumer for wireless communications (i.e. to receive and transmit information over the air by means of using any or more of the Standards), without the device having to be integrated or embedded into another device or connected to another device through for example a USB, memory card,

WLAN, or Bluetooth interface. For the avoidance of all doubts, the term "Personal Computer" does not mean subassemblies or parts or products such as, but not limited to Intermediate Products, other than as sold as part of the Personal Computer or as spare parts or repair parts of already Sold Personal Computers.

23. "Retailer" means an Entity, including such Entity's Affiliates, other than a Brand Company, a licensee of Ericsson, or a Network Operator, which is having as its main business to sell Third Party branded products to Consumers whether through shops or online.

24. "Sale," "Sell," "Sold," or any similar term, mean the delivery of TCL Products in any country of the world to a Third Party regardless of the basis for compensation, if any, including lease, rent or similar transaction, whether as an individual item or as a component or constituent of other products, or the putting into use of the TCL Products by TCL for any purpose other than routine testing thereof—with a Sale being deemed to have occurred upon shipment or invoicing or such putting into use, whichever shall first occur. TCL Products that are returned for refund (for avoidance of doubt to exclude warranty returns), may be netted against units Sold, so long as a returned unit that is subsequently resold is counted as a new Sale.

25. "Standards" means the ETSI (or, if applicable, its equivalent internationally recognized body or organization) cellular telecommunication standards 2G, 3G and 4G. For the avoidance of any doubt, Standards does not include WiFi, WiMax, CDMA, or Future Standards.

26. "Taxes and Custom Duties" means import, export, excise, sales and value added taxes and custom duties levied or imposed directly upon the Sale of TCL Products that TCL, as the case may be, remits to the government body levying or imposing such taxes or duties.

27. "TCL" means Plaintiffs and Counterclaim Defendants TCL Communication Technology Holdings Ltd., a company established under the laws of Cayman Islands, with its registered office at Cricket Square, Hutchins Drive, P.O. Box 2681, Grand Cayman KY1-1111, Cayman Islands; TCT Mobile (US) Inc., a Delaware corporation headquartered at 25 Edelman, Irvine, CA 92618; TCT Mobile Limited, a company established under the laws of Hong Kong, having its registered office at Room 1502, Tower 6, China Hong Kong City, 33 Canton Road, Tsimshatsui, Kowloon, Hong Kong; and all of their Affiliates.

28. "TCL Products" shall mean the End-User Terminals, External Modems, and Personal Computers all being branded with (a) a brand owned by TCL, Network Operators, or Retailers, provided that such TCL Products are not also branded with a brand owned by a Brand Company; (b) a brand licensed to TCL, Network Operators, or Retailer, provided that such licensed brand is not owned by a Brand Company; or (c) TCL shall have the option to ask for permission from Ericsson to add End User Terminals branded with Third Party brands (not being a Brand Company or a licensee of Ericsson) to the definition of TCL Products on a case by case basis. Such addition of End User Terminals branded with a Third Party brand (not being a Brand Company or a licensee of Ericsson) is always sub-

ject to Ericsson prior written approval. Such approval is at Ericsson's sole discretion. Notwithstanding the above, TCL Products branded with a brand licensed or transferred to it from Alcatel, Alcatel Lucent, or Blackberry Sold after such license or transfer and are compliant with one or more of the Standards shall be included in this definition of TCL Products and subject to royalty payment in accordance with this Injunction.

29. "Third Party/Third Parties" shall mean any Entity that is not Ericsson or TCL.

30. "Usual Trade Discounts" shall mean discounts actually allowed by TCL, as the case may be, to un-Affiliated persons or entities for TCL Products Sold by TCL, as the case may be, to such person or entity solely to the extent such discounts are agreed upon in writing by TCL, as the case may be, and such person or entity in a written supply (or related) agreement on, or prior to the time of Sale of such TCL Product, including prompt-pay discounts, volume discounts, price protection discounts, stock balancing discounts, late delivery penalties, payments for promotional rebates provided by such person or entity to its end user customers (the "Trade Discount Deductions"). Notwithstanding anything to the contrary above, the following shall not be included in the Trade Discount Deductions: discounts/payments agreed upon after the time of Sale of a TCL Product and market development and/or business development funds.

31. "2G" shall mean Global System for Mobile Communications (GSM) and Generalized Packet Radio System (GPRS), including the Enhanced GPRS (EGPRS/EDGE) standard specifications released

or published by 3GPP and/or relevant local standardization bodies such as ETSI, TIA, T1P1, ARIB, TIC, and CCSA, irrespective of the transmission medium or frequency band, at the time of the Effective Date and thereafter as well as updates in respect of such standard specifications during the License Period. For the avoidance of any doubt, 2G does not include 3G or any Future Standards.

32. "3G" shall mean UTRA FDD mode, i.e. UMTS and WCDMA, including HSPA standard specifications released or published by 3GPP and/or relevant local standardization bodies such as ETSI, TIA, T1P1, ARIS, TTC, and CCSA, irrespective of the transmission medium or frequency band, at the time of the Effective Date and thereafter, as well as any updates in respect of such standard specifications during the License Period. For the avoidance of any doubt, 3G does not include 2G, CDMA, WiMax, WiFi, or any Future Standards.

33. "4G" shall mean E-UTRA (FOO mode and TDD mode (including but not limited to LTE or TD-LTE)) standard specifications released or published by 3GPP and/or relevant local standardization bodies such as but not limited to ETSI, TIA, T1P1, ARIB, TTC, and CCSA, irrespective of the transmission medium or frequency band, at the time of the Effective Date and thereafter, as well as any updates in respect of such standard specifications during the License Period. However, such updates may not extend to any Future Standards. For the avoidance of any doubt, 4G does not include 2G, 3G, CDMA, WiMax , WiFi, or Future Standards.

34. "WiFi" shall mean the 802.11 standard specifications released or published by IEEE irrespective of the transmission medium, frequency band, or duplexing scheme, at the lime of the Effective Date, as well as any updates in respect of such standard specifications during the License Period. However, such updates may not extend to any Future Standards. For the avoidance of any doubt, WiFi does not include 2G, 3G, 4G, CDMA, WiMax, or Future Standards.

35. "WiMax" shall mean the 802.16 standard specifications released or published by IEEE, irrespective of the transmission medium, frequency band or duplexing scheme, at the time of the Effective Date, as well as any updates in respect of such standard specifications during the License Period. However, such updates may not extend to any Future Standards. For the avoidance of any doubt, WiMax does not include 2G, 3G, 4G, CDMA, WiFi, or Future Standards.

36. "CDMA" shall mean CDMA2000 standard specifications released or published by 3GPP2 and/or relevant local standardization bodies such as but not limited to ETSI, TIA, T1P1, ARIB, TTC, and CCSA, irrespective of the transmission medium, frequency band or duplexing scheme, at the time of the Effective Date, as well as any updates in respect of such standard specifications during the License Period. However, such updates may not extend to any Future Standards. For the avoidance of any doubt, CDMA does not include 2G, 3G, 4G, WiMax , WiFi, or Future Standards.

INJUNCTION

IT IS FURTHER ORDERED THAT:

This Injunction is binding upon the Parties, their officers, agents, servants, employees, and attorneys, and upon those persons in active concert with them who receive actual notice of the Injunction by personal service or otherwise.

A. License Grant

License Grant. Subject to the terms and conditions of this Injunction, TCL hereby is granted a world-wide, non-transferable, and non-exclusive license under Ericsson's Licensed Patents to make, Have Made, use, import, Sell, and offer for Sale TCL Products. The license and rights granted to TCL granted by this Injunction shall expire at the end of the License Period. The license granted to TCL further includes the right to make, use, and import solely by TCL (but not to Sell, lease, or otherwise dispose of to Third Parties) manufacturing and testing equipment compliant with the Standards for the testing, developing, and manufacturing of TCL Products.

Sublicense. TCL shall grant sublicenses of the rights set forth in this Clause to all future Affiliates of TCL Selling TCL Products. TCL shall procure that such future Affiliate shall be bound in all respects to all of the obligations contained in this Injunction, including but not limited to, the payment of royalties as set forth in Clause E of this Injunction. TCL shall be liable for the payment of royalties as set forth in Clause E attributed to all sublicensed future Affiliates, which shall be effectuated by TCL Communication Technology Holdings Ltd. directly. Any sublicense granted hereunder shall terminate if the Affiliate ceases to be an Affiliate of TCL.

No Implied License. Nothing in this Injunction shall be construed as a right to use or sell TCL Products in a manner which conveys or purports to convey whether explicitly, by principles of implied license, or otherwise, any rights to any Third Party user or purchaser of the TCL Products, under any patent of Ericsson covering or relating to any combination of the TCL Products with any other product (not licensed hereunder) where the right applies specifically to the combination and not to the TCL Product itself.

No Rights to Provide Foundry Services. For the avoidance of all doubt, nothing in this Injunction shall mean that Ericsson is granting a license under any Licensed Patents to TCL for providing of foundry services to Third Parties, i.e. TCL manufacturing and selling products based upon Third Party made and owned design when the product is thereafter sold to or directly on behalf of such same Third Party.

B. Limitations of License Grant

Jointly Owned Patents. With respect to Patents licensed herein which are owned jointly by Ericsson with others, the Court recognizes that there are countries which require the express consent of all inventors or their assignees to the grant of licenses or rights under patents issued in such countries for such jointly owned inventions. Ericsson shall give such consent and shall use all reasonable efforts to obtain such consent from its employees, and from other Third Parties and future Affiliates, as required to make full and effective any such licenses and rights granted.

If, in spite of such efforts, Ericsson is unable to obtain such consents from any such employees or Third Parties, the resulting inability of Ericsson to make full and effective its purported grant of such licenses and rights shall not be considered to be a breach of this Injunction. For the avoidance of doubt, in such a case, the licenses and rights shall be considered granted by Ericsson to the maximum extent possible, and, consequently, if TCL acquires a corresponding license from the employee or Third Party, TCL shall be deemed licensed under the patent.

No Rights Against Infringers. There may be countries in which TCL may have, as a consequence of this Injunction, rights against infringers of Ericsson's Patents licensed hereunder. TCL shall not assert any such right it may have by reason of any Third Party's infringement of any such Patents.

C. Release

Upon the receipt by Ericsson of the release payments set forth in Clause E by TCL, Ericsson shall release TCL and all customers of TCL who have purchased or used products herein licensed to TCL from claims for past patent infringement, provided such act would be licensed under this Injunction if it had occurred subsequent to the Effective Date.

Within thirty (30) days of final judgment (inclusive of all appeals and posttrial proceedings) and provided that Ericsson has received the release payment set forth in this Injunction from TCL, the parties shall cooperate to promptly seek the dismissal (with prejudice where available) of all claims and counterclaims in all litigations covered by the Court's anti-suit injunction dated July 10, 2015, Dkt. 284.

D. Know-How and Trade Secrets

No license or other right is granted herein to TCL, directly or by implication, estoppels or otherwise, with respect to any trade secrets or know-how, and no such license or other right shall arise from the consummation of this Injunction or from any acts, statements or dealings leading to such consummation. Except as specifically provided herein, Ericsson is not required by this Injunction to furnish or disclose to TCL any technical or other information.

E. Payments, Reports, and Audit

Royalties. In consideration of the license granted herein, TCL shall pay Ericsson:

1. A release payment of $16,449, 071 for past unlicensed sales of End User Terminals compliant with 2G, 3G, and/or 4G for the period 2007 through 2015, to be paid within thirty (30) days of the Effective Date;
2. A release payment for past unlicensed sales of End User Terminals compliant with 2G, 3G, and/or 4G for the period 2016 through 2017, to be reported and paid in January and February 2018, as set forth in the "Reports" and "Payment" section herein; and
3. A running royalty for End User Terminals Sold beginning January 1, 2018 according to the following schedule:
    a. For each such product Sold that is compliant with GSM, GPRS, or EDGE (but not compliant with WCDMA, HSPA, and/or 4G), 0.164% of the Net Selling Price if sold in the United States, 0.118% of the Net Selling Price if sold in Europe, and 0.090%

of the Net Selling Price if sold anywhere in the world other than theUnited States or Europe;

b. For each such product Sold that is compliant with WCDMA or HSPA (but not compliant with 4G), 0.300% of the Net Selling Price if sold in the United States, 0.264% of the Net Selling Price if sold in Europe, and 0.224% of the Net Selling Price if sold anywhere in the world other than the United States or Europe;

c. For each such product Sold that is compliant with 4G, 0.450% of the Net Selling Price if sold in the United States, TCL'S PROPOSED LANGUAGE: and 0.314% of the Net Selling Price if sold anywhere in the world other than the United States.

Should TCL purchase TCL End User Terminals from a Third Party claiming to be licensed or to have pass-through rights under Ericsson Licensed Patents that confer a license covering the End User Terminal, then TCL will receive credit for that pass through license in the royalty rates applied. In particular, with regard to Ericsson Patents that are essential to the WCDMA Standards ("Ericsson WCDMA Licensed Patents") for the Selling of ASICs, then TCL may have the option of remaining unlicensed by Ericsson under such Ericsson WCDMA Licensed Patents subject to Selling TCL End User Terminals with ASICs that are compliant with the WCDMA Standard. TCL shall then pay a royalty equal to the rate paid for the GSM/GPRS/EDGE and/or LTE Standards as specified in Clause E(3)(a) or Clause E(3)(c) of this Injunction, as applicable, for each such TCL End User Terminal provided that such TCL End User Terminal is also compliant with any of the GSM/GPRS/EDGE Standards and/or LTE Standards while it is qualified as a WCDMA End User Terminal. For the avoidance of doubt, the Parties acknowledge the doctrine of patent exhaustion. Ericsson confirms that upon the Effective Date it has not provided any licenses with pass-through rights under its 4G patent portfolio to a chipset provider, making, using, importing, selling, or otherwise disposing of 4G compliant chipsets and components.

For the avoidance of doubt, TCL shall only be required to pay the highest prevailing royalty rate under this Injunction for each End User Terminal. For example, the 3G royalty rate for 3G multimode End User Terminal includes the royalty rate also for the 2G part in such End User Terminal.

This Injunction does not require TCL to pay any royalties for the Sale of any External Modems or Personal Computers that are compliant with 2G, 3G, and/or 4G during the release period (*i.e.*, prior to January 1, 2018) or the License Period. TCL shall have a royalty-free license for all such sales.

<u>Reports</u>. TCL Communication Technology Holdings Ltd. shall, on behalf of all TCL Parties, make written reports to Ericsson for each applicable six months (January to June and July to December (each a "Reported Period")). Such reports shall be provided to Ericsson no later than one (1) calendar month after the first day of each January, and July for each year during the License Period and as of such dates including the last report after the License Period, stating in each such report, the number, Net Selling Price, gross price and other relevant information for each type of TCL Product Sold or otherwise disposed of during the pre-

ceding Reported Period, and on which royalty is payable as provided in this Clause E, and shall be at least as detailed as specified in Appendix 1. In addition to the written report, TCL Communication Technology Holdings Ltd. shall, on behalf of all TCL Parties and TCL Affiliates, send such report in Excel-format (.xls format) to Ericsson via email to: ipr.unit@ericsson.com. In the event that no royalty payment is due for a Reported Period, TCL shall so report.

Payment. TCL Communication Technology Holdings Ltd. shall, on behalf of all TCL Parties and Affiliates, pay to Ericsson the royalties specified in this Injunction no later than two calendar months after the end of each Reported Period, *i.e.* no later than on February 28th and August 31st for TCL Products Sold during the preceding Reported Period. The payment to Ericsson shall be made to the Ericsson fully owned Affiliate Ericsson AB by wire transfer to the Ericsson bank account as specified in Appendix 2. Such payment to Ericsson AB shall fulfill TCL's payment obligations under the Injunction.

Ericsson shall have the right to assign any rights of Ericsson in relation to any receivables arising under this Injunction to any financial institution or other Third Party and may disclose confidential information related to this Injunction for such purpose. If required, the TCL shall provide acknowledgment over the assignment to the financial institution or other third party. For the avoidance of doubt, any such assignment shall in no way affect the obligations of TCL to Ericsson under this Injunction.

Records and Audits. TCL Communication Technology Holdings Ltd., on behalf of TCL and all Affiliates, shall keep records showing the sales or other disposition of products sold or otherwise disposed of in sufficient detail to enable the royalties payable by TCL to Ericsson to be determined, and further, on behalf of TCL and all Affiliates, shall permit its books and records to be examined to the extent necessary to verify that reports and payments are sufficiently made in accordance with the Injunction, such examination to be made by an independent and professional auditor agreed by the Parties, such appointment not to be unreasonably refused, withheld or delayed by TCL, and without a contingency fee arrangement between the to-be-appointed auditor and Ericsson based on the outcome of the audit amount to be collected. This shall at least include all books, records, and accounts as may under internationally recognized accounting practices contain information bearing upon the amount of royalties payable in accordance with this Injunction. If the auditor confirms, based on *e.g.* the books, records, information and accounts which are provided by TCL to the auditor in accordance with TCL's obligations in this Injunction, that TCL has underpaid, TCL shall pay such deficiency amount within thirty days after receipt of invoice from Ericsson. In the event there is an overpayment by TCL, Ericsson shall credit such overpayment, verified by the auditor, against future payments by TCL to Ericsson. For the avoidance of doubt, an audit shall be conducted no more than once every year and only upon ten (10) days prior written notice to TCL. The auditor shall use best efforts to conduct the audit in a manner that limits its interference with TCL's normal business activities and/or operations.

The cost of such audit shall be borne by Ericsson, unless such audit determines that TCL has underpaid the royalties due hereunder by the lesser of (a) more than five percent (5%) or (b) two hundred thousand

U.S. Dollars ($200,000), in which case, TCL shall reimburse Ericsson for the reasonable cost of such audit. TCL shall preserve and maintain all such books and records required for audit for a period of five years after the calendar quarter for which the books and records apply.

The expiration of this Injunction shall not prejudice the right of Ericsson to conduct a final audit of the records of TCL, provided such audit is initiated no later than one (1) year from the expiration of the Injunction.

TCL Communication Technology Holdings Ltd., on behalf of TCL and all Affiliates, shall, at the agreed date for the auditor visit to the TCL premises, provide the auditor with the books and records, as requested by the auditor. The auditor shall have the right to analyze and verify such books and records at TCL's premises. For the avoidance of all doubt, such relevant books, records and accounts shall be treated as TCL confidential information ("TCL Audit Confidential Information") and any TCL Audit Confidential Information shall not be disclosed to Ericsson under any circumstances. Auditor shall use best efforts to observe the rules of onsite audit field work when in TCL premises.

Conversion to U.S. Dollars. To the extent that the Net Selling Price for TCL Products Sold is paid to TCL other than in U.S. Dollars then TCL shall convert the portion of the royalty payable to Ericsson from such Net Selling Price into U.S. Dollars at the official exchange rate of the currency of the country from which the Net Selling Price was paid, as quoted by the Financial Times for the last business day of the calendar quarter in which such TCL Products were Sold. If the transfer of or the conversion into U.S. Dollars is not lawful or possible, the payment of such part of the royalties as is necessary shall be made by the deposit thereof, in the currency of the country where the Sale was made on which the royalty was based to the credit and account of Ericsson or its nominee in any commercial bank or trust company of Ericsson's choice located in that country prompt notice of which shall be given by TCL to Ericsson.

Late Payments. TCL shall pay interest on any overdue payment required to be made pursuant to this Injunction, commencing on the date such payment becomes due, at an annual rate of twelve percent (12%).

Taxes. All payments required by this Injunction are exclusive of taxes, customs, or any other duties, and TCL shall be responsible for the payment of all such taxes, customs or other duties including, but not limited to, all sales, use, rental receipt, personal property or other taxes and their equivalents which may be levied or assessed in connection with this Injunction (excluding only taxes based on Ericsson's net income).

Hence, if in accordance with present or future laws, Ericsson shall be obliged to pay, or TCL obliged to deduct from any payment to Ericsson, any amount with respect to any taxes, customs or any other duties levied, for which Ericsson is responsible as stated above, TCL shall increase the payment to Ericsson by an amount to cover such payment by Ericsson or deduction by TCL.

F. Change of Control

In the event that more than 20% of TCL's ownership changes by merger, acquisition, consolidation, transfer, or otherwise, any party may seek to address with the Court whether such change should impact the rights and obligations set forth in this Injunction, or whether modification, termination, or clarification of the Injunction is required regarding the parties' obligations given such change.

G. Transfer of Licensed Patents

Ericsson shall not transfer or assign any of the Licensed Patents during the License Period unless such assignment, including future assignments of any of the Licensed Patents, is made subject to maintenance of the licenses and rights as granted under this Injunction.

H. No Additional Limitations or Obligations

Nothing contained in this Injunction shall (i) limit the rights which TCL has outside the scope of the license and rights granted hereunder, or restrict the right of TCL to make, Have Made, use, lease, sell, or otherwise dispose of any particular product or products not licensed herein; (ii) obligate any Party to bring or prosecute actions or suits against Third Parties for infringement; (iii) obligate any Party to furnish any manufacturing or technical information or assistance; (iv) obligate any Party to file any patent application, or to secure any patent or patent rights, or to maintain any patent in force, or to provide copies of patent applications to the other Parties, or to disclose any inventions described or claimed in such patent applications; (v) confer any right to use, in advertising, publicity or otherwise, any name, trade name, trademark, or any contraction, abbreviation , or simulation thereof; (vi) obligate Ericsson to make any determination as to the applicability of any patent to any product of TCL; or (v) require Ericsson to assume any responsibilities whatsoever with respect to the manufacture, sale, lease, use, importation, or disposition of any product or part thereof, by TCL or any direct or indirect supplier or vendee or other transferee of TCL.

I. Waiver

Neither this Injunction nor any provision hereof may be waived without the prior written consent of the Party against whom such waiver is asserted. No delay or omission by either Party to exercise any right or power shall impair any such right or power to be construed to be a waiver thereof. Consent by either Party to, or waiver of, a breach by the other Party shall not constitute consent to, waiver of, or excuse for any other different or subsequent breach.

J. Assignment

Neither this Injunction nor any license or rights hereunder, in whole or in part, shall be assignable or otherwise transferable by either Party without the written consent of the other Party. Any attempt to do so in contravention of this Article shall be void and of no force and effect.

K. Notice

All notices, requests, demands, consents, agreements, and other communications required or permitted to be given under this Injunction shall be in writing and shall be: (a) delivered personally; (b) mailed to the Party to whom notice is given, by first class mail, postage prepaid; or (c) sent by facsimile or electronically, properly addressed with a confirmation copy to the Party's legal department (as appropriate) as follows:

ERICSSON Ericsson AB Att: Chief Intellectual Property Officer Torshamnsgatan 23 SE-164 80 Stockholm, Sweden Facsimile No: + 46 10 719 11 12	TCL TCL Telecommunication Technology Holdings Limited Att: Chief Legal Counsel 5th Floor, Building 22E 22 Science Park East Hong Kong Science Park Shatin, New Territories Hong Kong Facsimile No: +852-3180-2800

Royalty reports in .xls format shall be emailed to: ipr.unit@ericsson.com.

Unless otherwise specifically provided for in this Injunction, such communications shall take effect upon receipt by the addressee, provided such communications shall be deemed to have arrived upon the expiration of seven (7) days from the date of sending in the case of registered or certified mail and on the day of receipt of the sender's facsimile confirmation of the transmission in the case of telefax.

The above addresses and contacts can be changed by providing notice to the other Party in accordance with this Clause.

L. Confidentiality

Except as may otherwise be required by law or as reasonably necessary for performance of this Injunction, each Party shall keep any information, whether of a commercial or technical nature including but not limited to any related reports, furnished by the other Party pursuant to this Injunction confidential. The confidentiality obligations hereunder shall, for ten (10) years, survive the expiration of this Injunction for any reason.

M. Headings

All headings used in this Injunction are inserted for convenience only and are not intended to affect the meaning or interpretation of this Injunction or any clause or provision herein.

RETENTION OF JURISDICTION

IT IS FURTHER ORDERED that this Court retains jurisdiction of this matter for purposes of construction, modification, and enforcement of this Final Judgment and Injunction.

COSTS

The TCL Parties (TCL Communication Technology Holdings, Ltd., TCT Mobile Limited, and TCT Mobile (US) Inc.) are the prevailing parties, and shall recover their costs.

The parties' claims and counterclaims regarding Ericsson's '556 and '506 patents are hereby dismissed without prejudice because they are moot in light of the equitable relief granted in the release payment. Insofar as they are not addressed in this Final Judgment and Injunction, all other requests for relief set forth in the parties' pleadings are hereby denied.

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Appendix 2 to this Amended Final Judgment and Injunction contains only banking information and shall remain under seal.

The Clerk is directed and ordered to enter this judgment.

Dated: March 9, 2018

/s/ James V. Selma
HON. JAMES V. SELNA
UNITED STATES
DISTRICT JUDGE

APPENDIX 1

Customer Product type (e.g. mobile phone, tablet etc.)	Model name and number	Units Sold	Gross Selling Price (US$)	Net Selling Price (US$)	Royalty rate (%)	Total Royalty amount (US$)
Total (US$)						