No. 19-16122

United States Court of Appeals for the Ninth Circuit

FEDERAL TRADE COMMISSION,
Plaintiff – Appellee,

v.

QUALCOMM INCORPORATED,
Defendant – Appellant.

Appeal from the United States District Court for the
Northern District of California
The Honorable Lucy H. Koh (No. 5:17-cv-00220-LHK)

**BRIEF OF *AMICUS CURIAE* MEDIATEK INC.
IN SUPPORT OF APPELLEE AND AFFIRMANCE**

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CORPORATE DISCLOSURE STATEMENT

Pursuant to Federal Rule of Appellate Procedure 26.1, MediaTek Inc. ("MediaTek") states that it has no parent corporation and that no publicly held corporation owns 10% or more of MediaTek's stock.

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INTEREST OF *AMICUS CURIAE*[1]

Amicus curiae MediaTek sells more than 1.5 billion semiconductor chips per year powering cell phones, tablets, voice assistant devices, smart TVs, and media players. Having been excluded from CDMA and premium LTE modem chip markets by Qualcomm's anticompetitive conduct for over a decade, MediaTek has an interest in affirmance of the District Court decision and the imposition of relief that will restore competition.

All parties have consented to the filing of this brief.

ARGUMENT

In straightforward and methodical fashion, the District Court laid out extensive evidence supporting every element of a Sherman Act Section 2 violation:

- Monopoly power in multiple properly defined relevant markets, which Qualcomm does not contest;
- Multiple forms of mutually reinforcing anticompetitive conduct, in which Qualcomm first refused to offer licenses to its competitors, resulting in a license requirement at the device

[1] Pursuant to Federal Rule of Appellate Procedure 29(a)(4)(E), MediaTek certifies that its counsel authored the brief in whole, no party or party's counsel contributed money that was intended to fund preparing or submitting the brief, and no person other than MediaTek contributed money that was intended to fund preparing or submitting the brief.

level, then abused its monopoly power and manipulated license terms to systematically tax and exclude competition;

- Extensive, unambiguous evidence of systemic harm to competition, resulting in the maintenance of Qualcomm's monopolies and a high likelihood of recurrence as markets transition to 5G technology; and

- Absence of any legitimate, non-pretextual justification for Qualcomm's systematic exclusion of competition.

By contrast, Qualcomm repeatedly distorts the record evidence, cherry-picking individual elements of its anticompetitive scheme and erroneously arguing that each isolated element does not amount to an antitrust violation.

I. QUALCOMM INCORRECTLY COMPARTMENTALIZES THE COURT'S FINDINGS OF ITS EXTENSIVE, MULTIFACETED ANTICOMPETITIVE CONDUCT

Qualcomm's brief slices and dices the District Court's opinion as though it involves isolated "duty to deal" (Sections I and V), "surcharging" (Section II), and "exclusive dealing" (Section III) violations. In doing so, Qualcomm improperly treats the FTC's claims as though they were "completely separate and unrelated lawsuits." *Cont'l Ore Co. v. Union Carbide & Carbon Corp.*, 370 U.S. 690, 698-99 (1962) (rejecting effort to "tightly compartmentaliz[e] the various factual components and wip[e] the slate clean after scrutiny of each"); *City of Anaheim v. S. Cal. Edison*

Co., 955 F.2d 1373, 1376 (9th Cir. 1992) ("it would not be proper to focus on specific individual acts of an accused monopolist while refusing to consider their overall combined effect").

Contrary to Qualcomm's rhetoric, this is not individually a "duty to deal" or "surcharge" or "exclusive dealing" case that can be analyzed under narrow sets of principles applicable to single types of exclusionary conduct. Applicable precedent makes clear that a monopolist's conduct should be assessed holistically under a clear and straightforward test: "Anticompetitive conduct is behavior that tends to impair the opportunities of rivals and either does not further competition on the merits or does so in an unnecessarily restrictive way." *Cascade Health Solutions v. PeaceHealth*, 515 F.3d 883, 894 (9th Cir. 2008).

This standard is met by the District Court's decision. First, the Court extensively chronicled the *de jure* and *de facto* exclusivity systematically resulting from Qualcomm's pattern of first refusing to license its competitors, then insisting that customers have licenses before being able to buy monopoly chips, and finally manipulating its licenses to tax and exclude rivals in multiple interlocking ways. Second, the Court contrasted Qualcomm's conduct in monopolized markets with its conduct in unmonopolized markets, undermining the notion that Qualcomm's practices in the former constituted competition on the merits or were not unnecessarily restrictive. Third, the Court made clear that Qualcomm's proffered justifications were pretextual. Qualcomm's compartmentalized arguments nowhere address the bulk of the evidence against it or the holistic legal analysis provided by the District Court.

II. QUALCOMM DISTORTS THE DISTRICT COURT'S FINDINGS REGARDING HARM TO COMPETITION

Qualcomm devotes nearly a third of its argument to contentions that the District Court "fail[ed] to identify any harm to competition" (Br. 43, 57-69), did not find that Qualcomm's conduct "in fact caused any 'harm' or 'outcome' in the market" (*id.* 57), and "relied on 'inference'" of such harm (*id.* 69-84). On these bases, Qualcomm argues that the District Court's opinion fails to establish a violation under the Rule of Reason and established monopolization case law. Multiple *amici* parrot Qualcomm's claim. (Antitrust/Patent Professors Br. 1-2; DOJ Br. 13-18; Law/Economics Scholars Br. 8-9.) These arguments fail because they distort virtually everything the District Court did.

The District Court did not "infer" harm to competition. To the contrary, it concluded that the evidence must in fact show harm (*e.g.*, 1ER21-22, 1ER42) and specifically detailed the evidence showing precisely that, including evidence showing:

1. Qualcomm has maintained a high share of CDMA chip sales. (1ER29.)

2. Qualcomm has maintained supra-competitive pricing for CDMA chips. (1ER29-30.)

3. Qualcomm's conduct has created artificial entry barriers. (1ER33.)

4. Qualcomm has maintained a high share of premium LTE chips. (1ER40.)

5. Qualcomm has maintained supra-competitive pricing for premium LTE chips. (1ER41.)

6. Qualcomm used its monopoly power to eliminate technology competition from WiMAX and ensure that the industry adopted a standard preferred by Qualcomm, thereby reinforcing its chip power. (1ER85-88.)

7. Qualcomm's refusal to offer MediaTek an exhaustive license delayed MediaTek's entry in successive generations of chips. (1ER115-17.)

8. Qualcomm's refusal to offer Samsung an exhaustive license prevented Samsung from entering the modem chip market as part of a joint venture. (1ER117-18.)

9. Qualcomm's subsequent refusal to offer Samsung an exhaustive license prevented Samsung from selling modem chips to other OEMs. (1ER118-19.)

10. Qualcomm's refusal to offer VIA Telecom an exhaustive license prevented VIA from reaching a large portion of the CDMA chip market and caused OEMs to view VIA as an ineffective competitor. (1ER119-20.)

11. Qualcomm's refusal to offer Intel an exhaustive license delayed Intel's entry into modem chip markets. (1ER120-21.)

12. Qualcomm's refusal to offer Huawei an exhaustive license prevented Huawei's entry into modem chip markets. (1ER121-22.)

13. Qualcomm's failure to offer an exhaustive license to Broadcom hastened Broadcom's exit from modem chip markets. (1ER122-23.)

14. Qualcomm's chip supply threats caused VIVO to stop buying MediaTek chips that were better suited for VIVO's handsets. (1ER106-08, 1ER155-56.)

15. Qualcomm's royalty discrimination imposed a tax on MediaTek chips that caused Wistron to stop buying from MediaTek. (1ER108-09, 1ER156.)

16. Qualcomm's supra-FRAND royalties on handsets incorporating non-Qualcomm chips impose an artificial surcharge on all sales of rivals' modem chips, resulting in reduced margins and exclusivity. (1ER186.)

17. Qualcomm's exclusivity conditions created a strong disincentive for Apple to use competitors' chips, foreclosing Intel at Apple for several years. (1ER92-93, 1ER98-102.)

18. Qualcomm's exclusivity-based foreclosure of Intel had broad market impact because of Apple's prominence as a validating customer. (1ER95-96, 1ER99, 1ER148-52.)

19. Qualcomm's incentive funds, which discriminatorily reduced Qualcomm royalties based on purchase of Qualcomm chips, prevented Blackberry from using competitors' chips (1ER154-55) and prompted LGE, Samsung, Lenovo, Motorola, and Huawei to shift chip purchases away from competitors (1ER81), resulting in exclusivity (1ER188-89).

20. The cumulative impact of Qualcomm's exclusive deals suppressed sales available to modem chip competitors. (1ER156.)

These numerous harms had a dramatic and systematic impact: they diminished competitors' ability and incentive to innovate and compete at the technological frontier of the relevant chip markets, eliminating competitive constraints on Qualcomm and perpetuating Qualcomm's monopoly throughout multiple technology generations. *Cf. ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254, 289 (3d Cir. 2012) (affirming based on the "cumulative effect" of defendant's conduct).

The District Court also specifically found evidence causally connecting Qualcomm's conduct to competitive harm. (1ER203-05.) Thus, Qualcomm's suggestion that the District Court improperly inferred harm is doubly incorrect: the court neither inferred harm nor even inferred causation, even though it was entitled to do the latter, as it correctly recognized under the D.C. Circuit's decision in *United States v. Microsoft Corp.*, 253 F.3d 34, 79 (D.C. Cir. 2001) (1ER44).

Qualcomm also incorrectly contends that in finding Qualcomm's conduct anticompetitive, the District Court improperly "meant conduct that would by its nature tend to disadvantage the financial position of

Qualcomm's rivals—not that the conduct in fact was exclusionary and thus harmed the competitive process." (Br. 23.) This simply ignores the District Court's findings that the impediments erected by Qualcomm maintained its share, created entry barriers, and gave Qualcomm power over price by diminishing rivals' ability to constrain Qualcomm's monopoly power. *Cf. Microsoft*, 253 F.3d at 65 (a monopolist's conduct is exclusionary when, "through something other than competition on the merits, [it] has the effect of significantly reducing usage of rivals' products and hence protecting [the] monopoly"); *Forsyth v. Humana, Inc.*, 114 F.3d 1467, 1478 (9th Cir. 1997) (raising rivals' costs can be exclusionary conduct when it allows the defendant to charge higher prices).

Qualcomm's *amici* rightly emphasize the antitrust importance of innovation. (Antitrust/Patent Professors Br. 7-8.) But that importance confirms rather than undermines the District Court's findings. The record evidence shows that Qualcomm's conduct has consigned competitors to time-delayed entry into already-mature markets where the available profits were insufficient to fund research and development of next-generation chips. (1ER194-200.) That precise effect has been core to MediaTek's difficulty in the marketplace, notwithstanding its sales of mature low-end chips. Qualcomm's conduct reduced innovation. And the dynamic, innovation-based competition that Qualcomm's anticompetitive conduct has eliminated — repeatedly and at each technology transition (2G to 3G to 4G and now to 5G) (1ER223) — is far more important than the static, price-based competition in non-premium chip markets that has remained.

III. QUALCOMM GETS BOTH THE LAW AND THE FACTS WRONG AS TO ITS REFUSAL TO LICENSE

Qualcomm's arguments that Qualcomm had no duty to deal are incorrect. As the FTC explains, Qualcomm can find no refuge in the legal standards for refusals to deal because it voluntarily *agreed* to deal by making multiple FRAND commitments. Indeed, the FTC is correct based not only on Qualcomm's voluntary FRAND commitments, but also on the record evidence of myriad forms of mutually reinforcing anticompetitive conduct going far beyond any simple refusal to deal.

We make two additional points below. First, even if this Court concludes that Qualcomm's FRAND commitments did not extend to licensing rivals or that refusal-to-deal principles still apply for some other reason, the District Court was correct to find a refusal-to-deal violation under Section 2. Second, even putting aside liability for refusal to deal, the District Court's remedial requirement that Qualcomm offer licenses to its competitors is warranted because such relief is both an important and a particularly effective remedy for Qualcomm's other wide-ranging exclusionary conduct.

A. Qualcomm Misrepresents The Law Of Refusals To Deal

Qualcomm makes widely available to chip customers the exact product — exhaustive patent licenses to its cellular SEPs — it refuses to provide rivals. *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 593-94, 608 (1985); *Otter Tail Power Co. v. United States*, 410 U.S. 366, 370-71 (1973). This refusal to license manifests "a distinctly anticompetitive bent," which — coupled with Qualcomm's prior voluntary FRAND commitments and its insistence that others license SEPs to Qualcomm's own chip business — makes it actionable exclusionary conduct, even standing alone. *Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 409 (2004). And it stands far from alone in this case.

In *Aspen Skiing*, the Supreme Court made clear that the ultimate determination is whether a monopolist's "pattern of conduct" is sufficiently "bold, relentless, and predatory" to support an "inference that the monopolist made a deliberate effort to discourage its customers from doing business with its smaller rival." 472 U.S. at 610. The record here unquestionably supports the District Court's finding of bold, relentless, and predatory conduct. (*E.g.*, 1ER45-46, 1ER50, 1ER77, 1ER84, 1ER90-106, 1ER142-58, 1ER187-96, 1ER203, 1ER215-16.)

In *Trinko*, the Court interpreted *Aspen Skiing* as holding that the unilateral termination of a voluntary course of dealing violates the Sherman Act when done "to achieve an anticompetitive end." 540 U.S. at 409. The record here clearly fulfills that requirement, again even considering the refusal to deal alone. For example, with regard to MediaTek, Qualcomm's refusal was expressly designed to thwart entry by reducing MediaTek's customer base and destroying MediaTek's margins.[2] (1ER215-16.) Qualcomm acted for an anticompetitive goal; it did so in a radical departure from a prior course of dealing (as discussed below); and its conduct had the precise anticompetitive effect it intended.

[2] Qualcomm later threatened Lenovo that it would to force *MediaTek* to stop supplying chips unless Lenovo agreed to Qualcomm's licensing terms, demonstrating how Qualcomm's refusal to license competitors enhances its ability to force customers to accept the exclusionary license terms that further violate the Sherman Act. (1ER192.)

Thus, this case is not a referendum on the "outer boundary" of refusals to deal under the Sherman Act. Qualcomm and its *amici* point to no authority suggesting that Qualcomm's refusal to honor a voluntarily assumed obligation to offer licenses — an obligation accepted in a standard-setting process designed to *ensure competition* — is entitled to immunity, with or without the compounding impact of Qualcomm's supply threats, discriminatory royalties, exclusionary royalty rates and caps, exclusive dealing, and gag clauses.

The facts here are significantly different than in *Trinko*. The Supreme Court's concern there about displacement of a complex regulatory scheme, 540 U.S. at 406, does not apply here, as there is no regulation to displace. *See Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297, 316-17 (3d Cir. 2007) (noting that Qualcomm's FRAND commitment constituted a voluntary agreement to license that was distinguishable from the regulatory framework in *Trinko*, and concluding that a monopolist's refusal to license competitors in the presence of FRAND commitments suffices to state a refusal-to-deal claim under Section 2). And unlike in *Trinko*, the licenses Qualcomm refuses to offer are not "something brand new"; they are precisely what is "marketed or available" to Qualcomm's customers, and what Qualcomm itself demands and accepts from its licensees. *Trinko*, 540 U.S. at 410. In short, refusing to license is of *heightened* competitive concern in the standard-setting context, where the adoption of standards nakedly eliminates competition and is tolerated only in the presence of commitments and safeguards that ensure that consumers will benefit despite the creation of technology monopoly. *Cf. Broadcom*, 501 F.3d at 314.

B. The Evidence Supports The District Court's Conclusion That Qualcomm Had An Antitrust Duty To Offer Exhaustive Licenses To Other Chip Suppliers Under All Applicable Precedent, Including *Trinko*

Qualcomm states that "the Court did not—and could not—find either of the facts required to find that duty under settled precedent: that Qualcomm departed from a prior course of dealing; and that it sacrificed short-term profits only to drive out its rivals and reap monopoly profits down the road." (Br. 5.) This argument ignores the record and distorts the law.

1. Prior Course Of Dealing

Qualcomm's refusal to license strayed from multiple prior voluntary courses of dealing:

1. Qualcomm's voluntary FRAND commitments to license, designed to expand Qualcomm's profits by securing inclusion of Qualcomm technology in standards (1ER6);

2. Qualcomm's previous record of licensing rivals (1ER128);

3. Qualcomm's exhaustive sales of chips (with license rights included in chip sales) in markets where it lacks monopoly power (1ER163-64);

4. Qualcomm's insistence that *other* SEP owners license their patents to Qualcomm's chip business (1ER46, 1ER57 (Sony), 1ER61 (Samsung), 1ER64-65 (Huawei), 1ER84-85 (Apple), 1ER109 (Pegatron), 1ER138-39); and

5. Qualcomm's previous repeated acknowledgements that its FRAND commitments obligate it to license its SEPs to competitors (1ER127).

Unable to refute this evidence, Qualcomm advances an "industry practice" defense that is factually incorrect and legally irrelevant. Qualcomm suggests that "every major cellular SEP licensor grants exhaustive licenses to OEMs, not to chipmakers." (Br. 13.) This discards the record evidence that other patent owners in fact do license their patents at the chip level (*e.g.*, 1ER129, 1ER142); that other suppliers sell chips with license rights (transferred or obtained at the chip level) included (*e.g.*, 1ER45, 1ER164-65); and that even *Qualcomm* sells chips with exhaustive license rights in markets where it lacks monopoly power (1ER89, 1ER163-64).

But even if refusing to license at the chip level were "industry practice," that would not validate *Qualcomm's* persistent refusal, because Qualcomm's monopoly power in cellular chips is unique. Other cellular SEP licensors have neither the ability nor incentive to leverage customer-level licensing in an exclusionary manner. "Behavior that otherwise might comply with antitrust law may be impermissibly exclusionary when practiced by a monopolist." *United States v. Dentsply Int'l, Inc.*, 399 F.3d 181, 187 (3d Cir. 2005).

2. Profit Sacrifice

Qualcomm's and the Law/Economics Professors' suggestion that Qualcomm's refusal to license competitors cannot violate Section 2 because the refusal is profitable is both circular and misstates the law. The test is not whether refusing to deal is itself profitable, but whether the refusal supplants past dealing that, as an *alternative* to the challenged conduct, was and would be profitable. *Trinko*, 540 U.S. at 409 ("The unilateral termination of a voluntary (*and thus presumably profitable*) course of dealing suggested a willingness to forsake short-term profits to achieve an anticompetitive end.").

Qualcomm makes no argument that licensing competitors would not be profitable. The District Court was correct to disregard *additional* downstream profits Qualcomm has achieved through holding customers up using the supply threats and supply terminations shown by Qualcomm's contemporaneous documents.[3] (1ER14-18.) Immunizing unlawful conduct because it is profitable as well as exclusionary would be perverse.

C. The District Court's Injunctive Relief Regarding License Offers At The Chip Level Should Be Affirmed Even Absent An Antitrust Duty To Deal

The salient characteristic of Qualcomm's refusal to deal — that it facilitates anticompetitive conduct in licensing to customers the same patents it refuses to license to competitors — justifies the relief ordered by the District Court *regardless* of whether Qualcomm had an antitrust duty to deal. This is because that remedy is among the most effective ways of addressing Qualcomm's abuse of its chip relationship with customers to exclude competition.

[3] Regardless of whether "patent holdup" exists generally (*see* Michel Br. 24-25), the record evidence makes clear that holdup occurred *here* because Qualcomm unreasonably wielded its chip power (beyond whatever power it might possess as a SEP owner) to secure licenses and suppress legal challenges to its preferred license terms.

With a license, MediaTek would no longer need fear the devastating impact of whatever discriminatory or exclusionary means Qualcomm devises to evade injunctive relief as to its device-level licenses. Instead, customers could choose to purchase chips from MediaTek and thereby avoid a licensing relationship with Qualcomm altogether. Moreover, chip-level licensing would ensure that Qualcomm could not continue to tax the sale of competitors' chips, thereby raising their cost, through supra-FRAND device-based royalties.

Contrary to Qualcomm's protest (Br. 54), the injunction's chip-level licensing requirement will not require extensive regulatory oversight of license terms. Qualcomm already licenses its SEPs and is subject to a voluntary commitment to do so on non-discriminatory terms. This renders judicial oversight manageable. *MetroNet Servs. Corp. v. Qwest Corp.*, 383 F.3d 1124, 1133 (9th Cir. 2004) ("If the defendant already sells the product in an existing market to certain customers but merely refuses to sell to its competitors, the court can impose a judicial remedy that does not require the court to 'assume the day-to-day controls characteristic of a regulatory agency.'" (quoting *Trinko*, 540 U.S. at 883)). More importantly, there is no industry regulator here. It is up to the courts to fashion effective relief from the exclusionary campaign that has unlawfully maintained Qualcomm's monopolies.

IV. THE DISTRICT COURT'S FINDINGS THAT QUALCOMM USED ITS UNREASONABLY HIGH ROYALTIES TO HARM COMPETITION ARE WELL FOUNDED

A. Qualcomm Mischaracterizes The District Court's Competition Concerns As Based On "High Prices"

The violation found by the District Court is not the high prices or royalties Qualcomm charges on its own sales.[4] Rather, as the FTC explains (FTC Br. 34-62), Qualcomm's supra-FRAND royalties are significant because they enable Qualcomm to tax *competitors'* chips and exclude competition through exclusivity rebates (1ER46 & 1ER50 (LGE), 1ER62 (Samsung), 1ER64 (Huawei), 1ER80-81 (Blackberry), 1ER90-94 (Apple)), chip-dependent royalty rates (1ER50 (LGE), 1ER64 (Huawei)), chip-dependent royalty caps (1ER59 (Samsung)), and chip-dependent strategic fund payments (1ER61-62 (Samsung), 1ER71 (Motorola),

[4] Conversely, as discussed below (*see infra*, Section VI), the violation also does not concern prices that are too *low*. The course of conduct on which the District Court's finding relies is predominantly *non-price* conduct, including refusals to deal, raising rivals' costs, and imposing exclusivity and other exclusionary conditions in connection with customers' licensing relationship with Qualcomm.

1ER75-76 (Lenovo), 1ER111 (ZTE), 1ER113-14 (Chinese OEMs)).[5] Qualcomm's extortionate no license-no chips scheme — including express threats to customers' ability to purchase *MediaTek's* chips (*e.g.*, 1ER76) — is unlawful because of these anticompetitive characteristics, not because Qualcomm's royalties are too high.

Qualcomm's argument that its high royalties "encourage customers to switch to competing suppliers" (Br. 8) and "imposed no obstacle to its rivals' ability to compete on the merits" (*id.* 29) is nonsense. Because Qualcomm imposed exorbitant royalty requirements on purchases of *competitors'* chips and conditioned royalty relief on the purchase of *Qualcomm's* chips (1ER51-52, 1ER70-71, 1ER81, 1ER92-94), the royalties did the opposite of encouraging the purchase of competing chips. Had Qualcomm simply raised its own *chip* prices, there would be no antitrust claim. But that is not what Qualcomm did.

By mislabeling the District Court's reasoning as simply concerning "higher prices," Qualcomm would immunize anticompetitive conduct that

[5] Qualcomm's contention that "the royalty on the cellphone does not change whether the OEM selects a modem chip made by Qualcomm or by a competitor" (Br. 4, 17-18) again distorts this extensive record evidence. Qualcomm is not entitled on appeal to simply substitute its reimagined facts for the substantiated findings of the District Court.

enabled Qualcomm to *evade* ordinary price competition and *escape* the decisions it normally would need to make about whether price increases would prompt greater entry and expansion by competitors.

B. Qualcomm Is Incorrect That The District Court Relied On A "Margin Squeeze"

Qualcomm's attempt to pigeonhole its conduct as a "margin squeeze" under *Pacific Bell Telephone Co. v. linkLine Communications, Inc.*, 555 U.S. 438 (2009), suffers from similar defects as its duty-to-deal argument.[6] As the District Court found, Qualcomm manipulated its monopoly chip supply *not only* to secure supra-FRAND royalties, but also to exclude competition through the exclusionary terms described above, threats to customers' ability to purchase chips even from competitors (*e.g.*, 1ER73-76 (Lenovo)), and gag clauses prohibiting customers from complaining (1ER62-63 (Samsung), 1ER97 (Apple)).

Because Qualcomm's no license-no chips and exclusivity policies — both facilitated by Qualcomm's refusal to license competitors — are species of exclusionary conduct under which Qualcomm will not deal with

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[6] *linkLine* holds that *absent* a duty to deal, dealings with rivals may not violate Section 2. 555 U.S. at 452. But here, as discussed above, there is ample factual and legal basis for a duty to deal.

customers unless they agree to terms that disadvantage and exclude Qualcomm's competitors, Qualcomm's analogy to *linkLine* is erroneous. *ZF Meritor*, 696 F.3d at 277, 280-81 (rejecting *linkLine* analogy where defendant "wielded its monopoly power to effectively force every direct purchaser … to enter into restrictive long-term agreements [with] terms unfavorable to the OEMs and their customers").

C. The District Court's Finding That Qualcomm's Royalties Are Unreasonably High Is Well-Founded

Qualcomm incorrectly argues that the District Court erred in finding that Qualcomm's royalties are unreasonable. (Br. 85-98.) [7] Qualcomm contends that the District Court should have relied on the "established royalty" from Qualcomm's own past licenses — the very licenses alleged and shown to be infected by its coercive no license-no

[7] Qualcomm's argument is also immaterial. This Court need not conclude that Qualcomm's royalties were unreasonably high in order to affirm the District Court's antitrust holding. What matters is that Qualcomm secured a licensing relationship with every OEM through its refusal to license competitors and its no license-no chips requirement, then abused that relationship to exclude competition. The District Court did not find an antitrust violation *based on* a FRAND violation.

chips policy — as the benchmark for whether its royalties are reasonable. (Br. 86; *see also* Michel Br. 20-21.)[8]

Referring to Qualcomm's past licenses would be perverse where the record evidence reflects Qualcomm's persistent, successful efforts to inflate and manipulate its royalties by exerting economic power in chips, far beyond any power from its patents.[9] Indeed, contrary to Qualcomm's

[8] Chief Judge Michel's observations regarding the superiority of patent and contract law as a means of addressing FRAND issues are both inapposite (because the antitrust violation goes beyond a FRAND violation and unreasonable royalties) and ironic (given that the anticompetitive conduct found by the District Court specifically includes Qualcomm's use of contract clauses to *prevent* contract and patent law challenge to its practices). Regardless, the right to exclude that ordinarily exists under the patent laws does not render the antitrust laws inapplicable to Qualcomm's licensing conduct. *Microsoft*, 253 F.3d at 63 ("Intellectual property rights do not confer a privilege to violate the antitrust laws."). Moreover, the SEPs at issue here are subject to FRAND requirements to offer licenses — a voluntary limitation on the right to exclude.

[9] Qualcomm argues that the District Court should have credited particular licenses that Qualcomm asserts were untainted — for example, licenses entered into for WCDMA technology or before Qualcomm sold chips in which it possessed market power. (Br. 86-87.) But Qualcomm's arguments that some of its licenses may have been untainted has several fundamental flaws. For example, as the District Court found, Qualcomm's own expert admitted that Qualcomm's WCDMA licenses often covered CDMA as well. (1ER227.) Similarly, the pre-standardization licenses to which Qualcomm points were not subject to a FRAND obligation. *See Microsoft*, 2013 WL 2111217, at *18. These justifications for discarding the licenses Qualcomm would pluck as

and its *amici*'s suggestion, hold-up is of *particular* concern in the context of industry standards. *Broadcom*, 501 F.3d at 310-14.

Even outside the antitrust context, courts analyzing whether royalties are FRAND decline to rely on the patent owner's SEP licenses. *Microsoft Corp. v. Motorola, Inc.*, 2013 WL 2111217, at *64-99 (W.D. Wash. Apr. 25, 2013) (rejecting licenses to the SEPs at issue as benchmarks, instead relying on licenses to third-party patents), *aff'd*, 795 F.3d 1024, 1043-44 (9th Cir. 2015); *In re Innovatio IP Ventures, LLC Patent Litig.*, 2013 WL 5593609, at *5-8, 37-39 (N.D. Ill. Oct. 3, 2013) (basing FRAND rate determination on top-down analysis using smallest-saleable-unit principle rather than relying on past licenses to at-issue patents); *TCL Commc'n Tech. Holdings, Ltd. v. Telefonaktiebolaget LM Ericsson*, 2018 WL 4488286, at *8-15 (C.D. Cal. Sept. 14, 2018) (similar top-down analysis). Thus, even if Qualcomm were correct (and it is not)

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supposed benchmarks are in addition to the District Court's reasoning regarding the reasons why earlier rates should have declined. (1ER172-78.) By focusing only on the latter reasons — and suggesting that Qualcomm's royalties have declined as a *percentage* of the handset price because handset prices have increased (Br. 90), a sleight of hand intended to mask the fact that its royalties have *remained high or increased* in *dollars* — Qualcomm fails to address the multiple complementary reasons to discard its licenses.

that the District Court relied solely or primarily on other licensors' royalties (Br. 91-96), such an approach would be appropriate and sufficient to support the District Court's finding.

Indeed, Qualcomm ultimately concedes that the type of licenses cited by the District Court are relevant benchmarks, but claims that the District Court failed to evaluate whether the licensed patents were comparable to Qualcomm's purportedly "fundamental" cellular SEPs. (*Id.* 91-95.) But the District Court specifically considered and rejected Qualcomm's factual assertion that its patents are uniquely fundamental. (1ER166-70.) Most notably, the Court noted that none of Qualcomm's witnesses actually compared the relative value of Qualcomm's patents to others' innovations. (1ER167-68.) Qualcomm is no more entitled on appeal to benefit from an unsubstantiated, self-serving assertion than it was at trial.[10]

[10] Qualcomm's assertions regarding the supposedly special value of its cellular SEPs is also undermined by the record evidence showing that Qualcomm has repeatedly found it necessary to threaten customers' access to monopoly chips (1ER45-49, 1ER53-56, 1ER58-60, 1ER66-67, 1ER71, 1ER73-74, 1ER77, 1ER81-83, 1ER109-14), to refuse to provide prospective licensees patent claim charts (1ER46, 1ER69, 1ER75, 1ER109, 1ER162-63), and to enter into contracts prohibiting customers and licensees from challenging Qualcomm's patents or royalties (*e.g.*,

Moreover, the District Court did not rely on other SEP holders' licenses alone, but also on the extensive testimony and documentary evidence showing that Qualcomm's royalties — secured through abuse of its monopoly chip supply without Qualcomm ever proving the merits of its patents — were unreasonably high. (1ER60, 1ER68-71, 1ER74, 1ER79.) This evidence included Qualcomm's own documents, which show that Qualcomm recognized that its chip power has enabled it to sustain its royalty rates (1ER158-62), undermining the notion that the pure value of Qualcomm's patents drives its royalties. The evidentiary basis for the District Court's conclusion that Qualcomm's royalties are supra-FRAND goes far beyond what Qualcomm describes in its appeal and amply supports the District Court's findings.[11]

1ER62-63, 1ER97). Were its patents truly fundamental, Qualcomm would not have needed to resort to such tactics to evade evaluation of the merits of its patents.

[11] Qualcomm also relies on purely factual arguments that its royalties are reasonable because its licenses include both cellular and non-cellular SEPs and that its royalties have declined (as a percentage of the price of a cellphone). (Br. 89-90.) Even if these factual contentions were correct, which they are not, they are inappropriate on appeal. Qualcomm is not entitled to reargue the evidence.

V. QUALCOMM UNDULY COMPARTMENTALIZES AND DISTORTS THE RECORD REGARDING ITS SUPPLY THREATS

Qualcomm disputes the District Court's findings that Qualcomm threatened OEMs repeatedly with the loss of monopoly supply of CDMA and premium LTE chips if they did not conclude licenses, thereby setting in motion a course of conduct that maintained Qualcomm's chip monopolies. (Br. 99-102.) It does so through a combination of sophistry and reinvention of the facts.

First, Qualcomm recharacterizes its numerous supply threats as the "ordinary and inevitable consequences of Qualcomm's practice of not selling chips to OEMs that did not hold a license to Qualcomm's SEPs." (Br. 99.) Qualcomm's argument is both circular and disproven by the correlation between Qualcomm's threats and Qualcomm's monopoly power. Labeling a threat "ordinary" does not render it any less a threat, especially where the record evidence shows that the "ordinary" practice to which Qualcomm points is not only unique to *Qualcomm*, but even unique to *Qualcomm's supply of monopoly chips*. (1ER89, 1ER163-64.) The threats were not inevitable features of the sale of patented components, and the District Court properly condemned them under the antitrust laws because they had a causal connection to the maintenance of monopoly power.

Second, Qualcomm argues that "OEMs can contest Qualcomm's licensing rates" and bring "timely FRAND challenge[s]" to Qualcomm's license terms. (Br. 16, 100.) But this argument ignores the evidence that Qualcomm's use of its monopoly power precisely deterred OEMs from doing so. (1ER179-83.) Indeed, Qualcomm has used express license and contract clauses specifically to prevent FRAND challenges. (1ER62-63 (Samsung), 1ER97 (Apple).)

Third, Qualcomm would wipe away the evidence of supply threats because they supposedly "add nothing to the [District] Court's 'surcharge' theory," claiming that the threats did not exclude competition in the relevant chip markets. (Br. 100-01.) But this argument ignores the law and improperly truncates the evidence. Qualcomm's threats constituted refusals to deal with customers unless they entered into exclusionary license terms, including terms that directly raised rivals' costs. Such refusals are a well-established form of exclusionary conduct, particularly when the monopolist has a product that customers need (here, CDMA and premium LTE chips) but faces competition in other parts of its product line. *Lorain Journal Co. v. United States*, 342 U.S. 143, 152 (1951); *McWane, Inc. v. FTC*, 783 F.3d 814, 820-21 (11th Cir. 2015); *Dentsply*, 399 F.3d at 184-85.

Qualcomm also incorrectly suggests that the District Court condemned "monopoly leveraging." (Br. 102.) Leveraging is distinguished from monopolization in premising a violation on the creation of a competitive advantage in an ancillary market, without proof of the acquisition of monopoly power, a dangerous probability of such acquisition, or the maintenance of an existing monopoly. *E.g.*, *Trinko*, 540 U.S. at 415 n.4. Here, the District Court relied on evidence of the maintenance of Qualcomm's monopoly position in the relevant markets, not the mere creation of an advantage in ancillary markets.

VI. QUALCOMM DISTORTS THE DISTRICT COURT'S FINDINGS REGARDING EXCLUSIVITY AGREEMENTS

Pretending that its exclusivity-based agreements, like its other conduct, can be compartmentalized and characterized as mere pricing conduct, Qualcomm challenges the District Court's finding that these agreements contributed to Qualcomm's violation of Section 2.

Qualcomm first argues that its agreements did not in fact constitute "exclusive dealing" but instead provided volume discounts. (Br. 104-07.)

But the District Court made clear that the agreements went well beyond volume discounts to either expressly or implicitly require exclusivity. Layering exclusivity *on top of* volume-based pricing imposed conditions that rivals with competitive products could not surmount. (*E.g.*, 1ER92-93.) Exclusivity, not "discounting" (volume-based or otherwise) is the relevant portion of the offense.

Relying on *ZF Meritor*, Qualcomm argues that because its contracts should be analyzed as pricing conduct, they cannot warrant a finding of liability in the absence of evidence that they involved below-cost pricing. (Br. 107-09.) But *ZF Meritor* rejects a cost-based test for challenges to exclusivity-based agreements going beyond the level of prices. 696 F.3d at 269.

This case, no less than *ZF Meritor*, goes well beyond pricing practices. For example, the District Court found that Qualcomm's exclusivity-based rebates discriminated as to the effective *royalty* Qualcomm charged rather than reducing the *price* of Qualcomm's chips. (1ER51-52, 1ER58-59, 1ER63, 1ER70-73, 1ER81, 1ER90-91, 1ER94, 1ER187-88.) But even were this not the case, viewing the exclusivity conditions in isolation from Qualcomm's other clearly non-price conduct, including refusing to license competitors and raising rivals' costs through the imposition of royalties on their sales, would be erroneous.

Qualcomm next reprises its inaccurate depiction of the District Court's findings regarding the harm to competition wrought by Qualcomm's agreements. (Br. 109-14.) In doing so, Qualcomm mischaracterizes the law. Contrary to its suggestion that a specific 40-50% foreclosure threshold must be met, there is no minimum threshold under *Section 2* because a monopolist's use of exclusivity conditions "are of special concern." *ZF Meritor*, 696 F.3d at 271. In any event, it is clear that when one looks at the OEMs — including Apple, Samsung, LGE, Huawei, and Blackberry — with which the District Court found Qualcomm had used exclusivity agreements, there was substantial foreclosure, especially when one considers the evidence that leading customers such as Apple have inordinate influence on the ability of chip entrants to compete. (1ER189-90.)

Finally, Qualcomm faults the District Court for going beyond the FTC's allegations in finding that Qualcomm's agreements other than with Apple were unlawful exclusive dealing agreements. (Br. 114-15.) As the FTC explains (FTC Br. 97-99), this misconstrues the District Court's analysis, which evaluated the agreements in the context of assessing the Apple agreements. (1ER154.) But even had it not, Federal Rule of Civil Procedure 15(b) allows issues "tried by the parties' express or implied consent" to "be treated in all respects as if raised in the pleadings." The District Court's conclusion that non-Apple agreements constituted exclusive dealing was based on evidence introduced at trial, including a Samsung agreement on the parties' *joint* exhibit list. (1ER154-56.) Qualcomm's reliance on *Crawford v. Gould*, 56 F.3d 1162, 1168-69 (9th Cir. 1995), which expressly limited its holding to the permissible scope of evidence on *summary judgment*, is misplaced.

VII. QUALCOMM DISTORTS THE RECORD OF ONGOING HARM TO COMPETITION, INCLUDING IN 5G, WHICH JUSTIFIES THE DISTRICT COURT'S INJUNCTION

The scope of the injunction is supported by the evidence and is necessary to prevent recurrence of the extensive harm done by Qualcomm's anticompetitive conduct. (1ER219-25.) As discussed above, the anticompetitive harms in Qualcomm's strategy have been particularly — and deliberately — acute at a times of transition from one generation of cellular technology to another. At the onset of 5G deployment, the same will happen again unless relief is implemented.[12]

Contrary to Qualcomm's argument that "there is no evidence Qualcomm will exercise monopoly power" in 5G (Br. 33), the District Court catalogued both Qualcomm's and customers' documents and statements showing that, absent relief, Qualcomm is likely to continue to possess power in the now-emerging 5G market. (1ER221-24.) Indeed, since trial, one significant competitor, Intel, publicly announced its exit, leaving Qualcomm's dominance even more secure. The injunction is justified by the breadth of Qualcomm's anticompetitive conduct, current market conditions, and the likelihood of recurrence of competitive harm.

Perversely, Qualcomm's *amici* claim a national security need to reverse despite the fact that that very argument presumes a continuation of Qualcomm's monopoly position in the absence of the injunctive relief

[12] Moreover, contrary to Qualcomm's argument (Br. 117-19), declining market share does not preclude a finding of monopoly power. *Oahu Gas Serv., Inc. v. Pac. Res. Inc.*, 838 F.2d 360, 366-67 (9th Cir. 1988). That rivals continue to operate and even grow their market shares does not mean that conduct has not had actionable anticompetitive effects. *See McWane,* 783 F.3d at 838; *Conwood Co. v. U.S. Tobacco Co.*, 290 F.3d 768, 789-91 (6th Cir. 2002) (holding that evidence of injury to competition was sufficient when the plaintiff presented evidence that two of the three other manufacturers grew more slowly than they otherwise would have).

ordered by the District Court. Indeed, *amici* expressly acknowledge that Qualcomm has a dominant position in the supply of 5G chips. (DOJ Br. 2, 32.) But monopoly only perpetuates the *insecurity* of supply, and that is especially true where the most significant excluded competitors include Intel, an American company. Relief designed to permit competition will enhance national security, not undermine it.

Moreover, there could be a national security concern only if the relief at issue threatened to put Qualcomm out of business or destroy its profitability to an extent making it impossible to innovate. That is fanciful here, and based on no evidence whatsoever. Qualcomm has proven itself immensely profitable *and* has devoted the lion's share of its profits to dividends and stock repurchases ($25.63 billion in 2015-2017) — far more than to R&D ($16.2 billion). Even cutting Qualcomm's profits by nearly *two-thirds* could be accomplished with no impact on innovation.

VIII. THE DISTRICT COURT CORRECTLY GRANTED SUMMARY JUDGMENT ON QUALCOMM'S FRAND OBLIGATION TO OFFER LICENSES AT ALL SUPPLY-CHAIN LEVELS

Qualcomm argues that because it and others supposedly "license[] at the OEM level" (*e.g.*, Br. 132, 135-36), industry practice is inconsistent with the notion that TIA and ATIS IPR policies require chip-level licenses. But as discussed above, other licensors provide licenses at the chip level (*e.g.*, 1ER142 (Samsung)), and Qualcomm demands chip-level licenses for itself (1ER128-29, 1ER142). Qualcomm's argues that these are merely cross-licenses (Br. 137), but fails to explain how this distinction, which, as the FTC points out (FTC Br. 75), is incorrect and inconsistent with the record, is material. When Qualcomm has perceived chip-level licensing to be advantageous, it requires it. And as Nokia acknowledges (Nokia Br. 18), Qualcomm previously granted licenses to chip suppliers.[13]

Moreover, as Dolby recognizes (Dolby Br. 20), industry practice is relevant only if it does not alter the terms of the relevant contract. The terms of the policies at issue are unambiguous: SEP owners must offer licenses on FRAND terms. Qualcomm's effort to introduce ambiguity by pointing to the words "implement" and "practice" and suggesting that

[13] Nokia's argument that device-level licensing is universal also fails because Nokia itself argued precisely the opposite when it, like so many others in the industry, was victimized by Qualcomm's refusal to license and other exclusionary conduct. (1ER132.) The District Court found that Nokia's witness was not credible for this reason. (*Id.*) Like Qualcomm, Nokia now simply ignores record facts it dislikes and repeats distortions the District Court already rejected.

chips do not implement or practice the relevant cellular standards (Br. 133-35) disregards the record evidence, including evidence from Qualcomm itself to the contrary: Qualcomm regularly has described its chips as implementing cellular standards, both in ordinary-course materials and deposition testimony. (1ER272-73.)[14]

Finally, Qualcomm argues that because another SSO, ETSI, supposedly does not require licensing at the chip level, and because TIA's and ATIS's IPR policies "must be interpreted consistently" with ETSI's, those policies must permit device-level licensing. (Br. 137-38.) But as Nokia acknowledges (Nokia Br. 11-12), the specific language of each SSO's policy must drive determination of its meaning. Regardless,

[14] These admissions also support the District Court's finding that the chip price should serve as the royalty base for Qualcomm's cellular SEPs because the chip is the smallest saleable patent practicing unit ("SSPPU"), and refute Qualcomm's suggestion (Br. 98) that its SEPs read on more than the modem chip. Contrary to Chief Judge Michel's suggestion (Michel Br. 13-15), there is nothing inconsistent between SEP cases and the SSPPU principle, which has been applied in such cases. *E.g.*, *Innovatio*, 2013 WL 5593609, at *13-14. And contrary to Qualcomm's argument (Br. 96-97), the Federal Circuit's *CSIRO* and *Exmark* decisions, which simply hold that comparable past licenses may establish a market royalty without reference to any royalty base (including the SSPPU), do not undermine the District Court's findings here. As discussed above, the District Court referenced other SEP owners' licenses as benchmarks, complementing its findings regarding the SSPPU principle.

Qualcomm did not establish at trial that ETSI's IPR Policy rejects chip-level licenses. To the contrary, the ETSI IPR Policy is consistent with a chip-level licensing obligation inasmuch as chips are "systems" or "devices" that "fully conform" to cellular standards, and ETSI has not repudiated this reading, instead simply declining to issue express clarification on this score and deferring to national courts. *TCL Commc'n Tech. Holdings*, 2018 WL 4488286, at *6-7.

The District Court properly granted summary judgment as a matter of the plain meaning of the ATIS and TIA policies. MediaTek and other chip suppliers are entitled to licenses to Qualcomm's SEPs under both applicable contract and antitrust principles.

Dated: November 29, 2019

Respectfully Submitted,

By <u>*/s/ Steven C. Holtzman*</u>

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