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No License, No Problem – Is Qualcomm's Ninth Circuit Antitrust Victory a Patent Exhaustion Defeat?

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The Ninth Circuit's recent decision in *FTC v. Qualcomm*[1] is generally viewed as a resounding victory for Qualcomm. In a strongly worded opinion, the Ninth Circuit reversed the entirety of the district court's holding,[2] which found that Qualcomm violated Sections 1 and 2 of the Sherman Act. The Ninth Circuit exonerated Qualcomm with respect to each of its allegedly anticompetitive practices, concluding that these practices merely reflected the flexing of Qualcomm's "economic muscle" with admirable "vigor, imagination, devotion, and ingenuity."[3]

Among Qualcomm's challenged practices was its refusal to license rival chip makers under patents that are essential to one or more wireless telecommunications standards (standards-essential patents or SEPs). While the District Court found that this refusal violated Qualcomm's antitrust duty to deal under *Aspen Skiing v. Aspen Highlands Skiing* [4] the Ninth Circuit disagreed. It reasoned that Qualcomm did not violate any duty to deal because it *uniformly* refused to grant patent licenses to chip makers and did not "single[] out any specific chip supplier for anticompetitive treatment."[5]

In praising Qualcomm's egalitarian approach toward rival chip makers, the Ninth Circuit points out that instead of granting licenses to these rivals, Qualcomm merely "declines to enforce its patents" against them "even though they practice Qualcomm's patents."[6] As such, the Ninth Circuit quips that Qualcomm's "policy toward rival chipmakers could be characterized as '**no license, no problem**.'"[7] Yet, as I discuss below, this approach could actually be a *very* big problem, not only for Qualcomm, but for all patent licensors seeking to extract revenue from the most lucrative point in the supply chain.

A. *The Patent Exhaustion Doctrine and Chip Sales*

As the Supreme Court explained in *Quanta Computer v. LG Electronics,*[8] "The longstanding doctrine of patent exhaustion provides that the initial authorized sale of a patented item terminates all patent rights to that item."[9] That is, once the patent holder *or its authorized licensee* sells a product covered by a patent, that patent can no longer be asserted against a downstream buyer or user of the product. The patent is "exhausted" with respect to that particular product.

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[1] FTC v. Qualcomm Inc., 969 F.3d 974 (9th Cir. 2020).
[2] *See* FTC v. Qualcomm Inc., 411 F.Supp.3d 658 (N.D. Cal. 2019).
[3] *Qualcomm*, 969 F.3d at 1005.
[4] Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585 (1985).
[5] *Qualcomm*, 969 F.3d at 995.
[6] Id.
[7] *Id.* (emphasis added).
[8] Quanta Computer, Inc. v. LG Elecs., Inc., 553 U.S. 617 (2008).
[9] *Id.* at 625.

In *Quanta*, LG licensed three patents to Intel. Intel manufactured chips allegedly covered by the patents, then sold the chips to Quanta for incorporation into Quanta's PCs. LG then attempted to assert the patents against Quanta. The court held that so long as the Intel chips "substantially embodied the patent[s]", they were exhausted upon Intel's sale of the chips to Quanta.[10] LG had no right to assert the patents against Intel's customer Quanta.

B. *Level Discrimination and SEPs*

To grossly oversimplify, the supply chain for standardized wireless telecommunications functionality can be divided into three relevant tiers: (1) standards developers, (2) chip manufacturers, and (3) end user device (e.g., smartphone) manufacturers. Standards developers like Qualcomm cooperate within standards-development bodies to create telecommunications standards like 4G LTE. Chip manufacturers then implement these standards in chipsets, which they sell to device manufacturers for incorporation into smartphones and other consumer devices.

What happens, however, when a standards developer like Qualcomm holds patents (SEPs) that cover a standard like LTE? In theory, both the chips embodying the standard and the smartphones incorporating those chips infringe its SEPs. Thus the SEP holder could choose to license those SEPs at either Tier 2 (chip manufacturers) or Tier 3 (device manufacturers). How to choose?

If a SEP holder licenses a chip manufacturer, then its SEPs covering a particular chip will be exhausted as soon as the manufacturer sell that chip to a device manufacturer, just as LG's patents were exhausted in *Quanta*. This means that if the SEP holder licenses a Tier 2 chip manufacturer, it cannot separately license, or collect royalties from, Tier 3 smartphone manufacturers for the same SEPs. Qualcomm was keenly aware of the risk of patent exhaustion, which is why it refused to grant "exhaustive" licenses to chip makers like Intel.[11]

If SEP royalties were standardized on a per-unit basis (e.g. $0.50 per product embodying the standard), then it would not matter whether the SEP holder licensed its SEPs at Tier 2 or Tier 3. In either case it would receive the same payment. However, due to longstanding industry practice, that is not how SEP royalties are calculated. Instead, they are usually based on some percentage (say 2.5%) of the price of the product embodying the standard. So for a 4G LTE wireless radio chipset priced at $30, the royalty would be $0.75. But for a $600 iPhone incorporating that chipset, the royalty would be $15. For this reason, SEP holders strongly prefer to license their SEPs to end device makers (Tier 3). As explained by one Ericsson licensing executive, "we choose to license the patents as late in value chain as possible …. One big advantage with this strategy is also that it is likely that the royalty income will be higher since we calculate the royalty on a more expensive product."[12] Or, as more succinctly expressed by a Qualcomm attorney at trial, licensing SEPs to device makers is "humongously" more lucrative than licensing them to chip makers.[13] The practice by which a SEP holder licenses its SEPs at only one tier of the supply chain is sometimes called

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[10] *Id.* at 633.
[11] FTC v. Qualcomm Inc., 411 F.Supp.3d 658, 748, 761 (N.D. Cal. 2019).
[12] Florian Müller, *Ericsson Explained Publicly Why It Collects Patent Royalties From Device (Not Chipset) Makers*, FOSS PATENTS (Jan. 29, 2014, 9:02 AM), http://www.fosspatents.com/2014/01/ericsson-explained-publicly-why-its.html.
[13] *Qualcomm*, 411 F.Supp.3d at 754, 758, 796.

"level discrimination." (Courts and commentators disagree whether level discrimination is permitted under the nondiscrimination prong of a FRAND commitment[14]).

C. *Pseudo-Licensing Deals with Chip Makers*

If a SEP holder licenses its SEPs at Tier 3, what happens to the Tier 2 chip manufacturer? Does the chip that embodies the standard infringe the SEPs? Yes, probably. Patent exhaustion only works downstream, not upstream. That is, a smartphone manufacturer can't infringe a SEP if it purchases a chipset from a licensed chip maker. But a chip manufacturer can infringe a SEP even if its customer (the smartphone maker) has a license to use it. Without a license, the Tier 2 chip maker is exposed to infringement claims by the SEP holder.

So what's a chip maker to do? Should it manufacture and sell chipsets that embody a standard even though it knows that it is infringing a host of SEPs? Wouldn't this infringement be willful, subjecting the chip maker to a risk of treble damages?[15] It seems like an untenable situation for a chip maker.

To address this situation, Qualcomm appears to have developed various strategies. In the 1990s, it granted chip makers purportedly "non-exhaustive licenses" that permitted them to manufacture chipsets covered by Qualcomm's SEPs (in exchange for a royalty), but which explicitly excluded any license rights for the purchasers of those chipsets.[16] In *Quanta*, the Supreme Court rejected such a "non-exhaustive" arrangement between LG and Intel, holding that LG's patent rights were exhausted upon Intel's sale of covered chips to Quanta. After this, Qualcomm amended its practices and began to enter into "CDMA ASIC Agreements" with chip makers. Under these agreements, "Qualcomm ***promises not to assert*** its patents in exchange for the company promising not to sell its chips to unlicensed [smartphone manufacturers]."[17] According to the Ninth Circuit, these agreements "allow Qualcomm's competitors to practice Qualcomm's SEPs royalty-free."[18] Or, as the court pithily observed, Qualcomm's "policy toward rival chipmakers could be characterized as '**no license, no problem**.'"[19]

The Ninth Circuit found that because Qualcomm applied its "no license, no problem" policy uniformly toward all rival chip makers, it did not violate the antitrust laws. But did Qualcomm, instead, open the door to a finding that its patents are exhausted at the chip maker level?

D. *Do SEP Makers Inadvertently Grant Exhaustive Licenses to Chip Makers?*

As observed by the Ninth Circuit, Qualcomm "promises not to assert" its SEPs against chip

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[14] *See* Jorge L. Contreras & Anne Layne-Farrar, *Non-Discrimination and FRAND Commitments*, in THE CAMBRIDGE HANDBOOK OF TECHNICAL STANDARDIZATION LAW, VOLUME 1: COMPETITION, ANTITRUST AND PATENTS 186 (Jorge Contreras ed., 2018).

[15] For a discussion of willful infringement of SEPs see Jorge L. Contreras et al., *The Effect of FRAND Commitments on Patent Remedies*, in PATENT REMEDIES AND COMPLEX PRODUCTS: TOWARD A GLOBAL CONSENSUS 160, 162-63 (C. Bradford Biddle, et al., eds., 2019).

[16] FTC v. Qualcomm Inc., 969 F.3d 974, 984 n.7 (9th Cir. 2020).

[17] *Id.* at 984 (emphasis added).

[18] *Id.* at 985.

[19] *Id.* at 995.

makers. Its CDMA ASIC Agreements allow chip makers "to practice Qualcomm's SEPs royalty-free". Ericsson, which employs a similar form of level discrimination, has referred to the result as "indirect licensing" of chip manufacturers.[20]

In assessing whether a patent has been licensed, courts have generally looked beyond the language used by the parties. As the Supreme Court reasoned in *De Forest Radio Telephone Co. v. United States*,[21] "No formal granting of a license is necessary in order to give it effect. Any language used by the owner of the patent, or any conduct on his part exhibited to another from which that other may properly infer that the owner consents to his use of the patent in making or using it, or selling it, upon which the other acts, constitutes a license."[22]

A number of lower court cases have equated a license to a 'covenant not to sue'. As the Federal Circuit held in *Ortho Pharmaceutical Corp. v. Genetics Institute*,[23] "A license may amount to no more than a covenant by the patentee not to sue the licensee for making, using or selling the patented invention."[24]

Given this precedent, SEP holders' practice of tacitly permitting chip manufacturers to operate under their patents, whether by promising not to assert or "indirectly" licensing, looks suspiciously like **licensing**. And, if SEP holders are granting chip manufacturers licenses to make and sell chips under their SEPs, then those SEPs should, by rights, be **exhausted** upon the sale of those chips to smartphone and other device manufacturers. And this exhaustion should thereby prevent SEP holders from seeking to license and collect royalties from Tier 3 device manufacturers who incorporate those chips into their smartphones and other products.

This result should come as no surprise to anyone, least of all Qualcomm. According to the District Court, a Qualcomm executive admitted to the IRS in 2012 that "if Qualcomm licensed a rival [chip manufacturer] … '[W]hen [the rival] sell[s] that chip to somebody who's going to put the chip in a cell phone, okay, the licensee's sale of that chip will exhaust our rights and then we won't be able to collect a royalty on a cell phone that's based on the price of the cellphone.'"[25] When Huawei apparently asserted that Qualcomm's SEPs were exhausted after selling chips to Huawei, Qualcomm allegedly "threatened to cut off [Huawei's] chip supply."[26]

These statements and actions indicate that Qualcomm was well-aware of the threat of patent exhaustion, and actually took measures to avoid the appearance of exhaustion (e.g., by converting its chip maker license agreements into CDMA ASIC Agreements). Yet in trying to rebut the antitrust allegations made against it, and to overturn the District Court's antitrust holdings, Qualcomm seems to have persuaded the Ninth Circuit that it effectively grants *licenses* to rival chip manufacturers. And, in doing so, Qualcomm may have armed its next smartphone licensee with a potent exhaustion defense to any claim of infringement. Ultimately, "no license, no

[20] *See* Ericsson v. D-Link, 2013 U.S. Dist. LEXIS 110585, *80 (E.D. Tx. 2013)).
[21] De Forest Radio Telephone Co. v. United States, 273 U.S. 236 (1927).
[22] *Id.* at 241.
[23] Ortho Pharmaceutical Corp. v. Genetics Institute, Inc., 52 F.3d 1026 (Fed. Cir. 1995).
[24] *Id.* at 1031.
[25] FTC v. Qualcomm Inc., 411 F.Supp.3d 658, 796 (N.D. Cal. 2019).
[26] *Id.* at 712.

problem" may cause big problems for Qualcomm and other SEP holders that seek to license only at the most lucrative level of the supply chain.