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Standard-Essential Patents: The Growing Rift Between the United States and Europe

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With increasing standardization of digital technologies, standard-essential patents (SEPs) have become a thorny and critical issue for high-tech companies. SEPs implicate unique legal issues and create tensions between the territorial limits of patent rights and the global reach of standardized technologies. This article examines the different – and diverging – legal regimes on SEPs and their corresponding fair, reasonable, and non-discriminatory (FRAND) licensing obligations in two key geographic regions: the United States and Europe/the United Kingdom.

INTRODUCTION

Many modern technologies – including internet, WiFi, cellular communications, video streaming, computer memory, and computer bus architectures – are governed by industry standards that define their required operation and ensure interoperability across devices from different manufacturers. Any brand of WiFi router compliant with the IEEE 802.11 standardized protocols, for example, is expected to

communicate seamlessly with differently-branded IEEE 802.11-compliant devices.

Standards are typically written by technology companies and researchers working collaboratively in a standard-defining organization (SDO, also known as a standard-setting organization or SSO), in a process similar to legislation. In the International Telecommunication Union Telecommunication Standardization Sector (ITU-T), for example, a contributor proposes a technology for inclusion in a standard, a working group of experts further develops the proposal and decides whether to recommend including it in the standard and, if so, the proposal is opened up to comments and potentially further refinement before adoption.¹ Once a technology is adopted as an essential part of the standard, companies manufacturing standard-compliant equipment must implement the standard.

Aspects of a technical standard are often patented. A patent that must be practiced in order to comply with a standard is known as a “standard-essential patent.”

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Aspects of a technical standard are often patented. A patent that must be practiced in order to comply

with a standard is known as a “standard-essential patent” (SEP). SEPs raise unique issues, including the potential for “holdup:” because implementers cannot sell a standard-compliant device without using the patented technology included in the standard, SEP owners could demand disproportionate royalties from manufacturers of standard-compliant products (called “implementers”) or even seek to enjoin the sale of such products. This holdup licensing ploy undermines the very purpose of standardization, which is to foster a competitive market for interoperable products.

To avoid holdup, SDOs typically require contributors to agree in writing to license their SEPs on a “fair, reasonable, and non-discriminatory” (FRAND) basis to anyone who seeks a license. What FRAND requires in practice, however, may be unclear and is often disputed by SEP owners and SEP implementers. To complicate matters, FRAND is interpreted differently from one legal jurisdiction to another. This article provides a brief survey on the diverging approaches in the United States and Europe, two regions on the frontier of SEP disputes.

FOUNDATIONAL DIFFERENCES

In continental Europe, especially in Germany and the Netherlands, the rationale for FRAND licensing obligations is typically rooted in competition law – SEPs provide market power that would not otherwise exist but for adoption of the standard. The absence of viable economic alternatives for implementers establishes monopoly power for SEP owners, raising concerns about exploitation. An injunction against an implementer that is willing to obtain a license on FRAND terms and conditions and has complied with its own obligations can therefore, under certain circumstances, constitute abuse of dominant position in violation of EU competition law.²

By contrast, U.S. courts view FRAND as a contractual obligation – in exchange for their inclusion in the standard-defining process, contributors agree to license their SEPs on FRAND terms.³ The FRAND contract is technically between a contributor and the SDO, but standard implementers may be able to enforce it as third-party beneficiaries.⁴ The European competition-centric view of FRAND has been rejected by at least one U.S. court, which noted with approval “the persuasive policy arguments of several academics and practitioners with significant experience in SSOs, FRAND, and antitrust enforcement, who have expressed caution

about using the antitrust laws to remedy what are essentially contractual disputes between private parties engaged in the pursuit of technological innovation.”⁵ Breaking with its continental neighbors, the UK also primarily adopts a contract law view of FRAND obligations.⁶

EMERGING PRACTICAL DIFFERENCES

Given the distinct legal justifications for enforcing FRAND obligations in Europe compared to the United States, it is unsurprising that notable differences have emerged (or are emerging) in practice. Salient examples of these practical differences are discussed below.

Regulation

In April 2023, the EU proposed sweeping regulations that – if adopted in the form proposed by the EU Commission – would, among other things, require the following:

- SEP owners must undertake several steps, such as registering SEPs and initiating a non-binding FRAND determination, before attempting to enforce SEPs in Europe;
- The EUIPO must maintain the registry of SEPs and assess essentiality of registered SEPs;
- The EUIPO must implement processes for determining an aggregate royalty for a given standard – that is, the maximum royalty an implementer could expect to pay for a license for all patents essential to on the standard.⁷

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An amended version of the regulations that maintains the key features of the original proposal was adopted by the European Parliament’s Committee on Legal Affairs in late January 2024⁸ and approved by the European Parliament one month later.⁹ The

regulations are not law yet—they must still pass through the so-called trilogue negotiations between the EU Commission, the European Parliament, and the Council of the European Union.¹⁰ Nevertheless, the rapid progress of the EU Regulations demonstrates a European openness to SEP regulation that has so far been lacking in the United States¹¹ and has triggered a debate about the need for regulation in the United States.¹²

Injunctions

There is no hard-and-fast rule in the United States against injunctions for SEP infringement. Rather, courts apply the four-factor test outlined by the Supreme Court in *eBay*, which applies generally to injunction requests in patent lawsuits.¹³ U.S. courts generally view an injunction as inconsistent with an SEP owner's commitment to license its patents on FRAND terms.¹⁴ Compared to the United States, European courts are more likely to enjoin patent infringers.

However, because SEPs implicate EU competition law, an SEP owner must first take certain steps before filing suit – such as alerting the implementer in writing of the alleged infringement and providing a specific, written licensing offer on FRAND terms with explanations why the offer is FRAND compliant – to preserve its right to an injunction.¹⁵ And even if an SEP owner checks those boxes, an SEP implementer may still avoid an injunction in Europe by, for example, making its own FRAND offer and proving that the SEP owner's offer was not FRAND.¹⁶ In the UK, courts have devised the concept of a “FRAND injunction,” which ceases to have effect if an SEP infringer enters into a FRAND license.¹⁷

In recent years, the UK has taken lead in developing the “top-down” approach to calculating FRAND royalties.

FRAND Royalty Valuation

An interesting valuation issue is whether SEP owners are entitled to collect what is sometimes called “lock-in” value – that is, value flowing from one technology being chosen over alternatives for inclusion in the standard, as opposed to the value of the chosen technology on its own merits. In

the United States, the royalty for an SEP “must be premised on the value of the patented feature, not any value added by the standard's adoption of the patented technology.”¹⁸ Similarly, the European Commission has stated that SEP valuation “primarily needs to focus on the technology itself and in principle should not include any element resulting from the decision to include the technology in the standard.”¹⁹ Courts in the UK, however, have rejected this principle as unfair to the SEP owner.²⁰

FRAND Royalty Calculation

In recent years, the UK has taken lead in developing the “top-down” approach to calculating FRAND royalties. Rather than value individual SEPs from scratch (i.e. “bottom-up”), the top-down approach calculates a FRAND royalty for a given SEP through a two-step process: (1) the aggregate royalty for the entire standardized technology is determined, and (2) that aggregate royalty is apportioned among the various SEPs on the standard. Top-down was initially developed in a series of high-profile U.S. district court cases, but further development stateside stalled after the U.S. Court of Appeals for the Federal Circuit relegated FRAND royalty determinations to juries on Seventh Amendment grounds.²¹ The UK has since grabbed the top-down mantle; several UK courts have applied top-down as part of the global FRAND rate analysis in recent years.²² And the proposed EU Regulations feature a process to determine the aggregate rate, which could be used in a top-down style apportionment.

Royalty-Setting Authority

Recognizing the global scope of technology standardization and typical SEP licenses, European authorities have shown a willingness to establish licensing terms that would apply to a licensor's entire worldwide SEP portfolio. For instance, in UK courts, infringement of a UK patent is a jurisdictional foot-in-the-door; once that box has been checked, UK courts are willing to determine a global FRAND royalty.²³ And in continental Europe, the proposed EU Regulations include procedures that would presumably determine a global aggregate royalty and global FRAND terms.²⁴ On the other hand, the geographic scope of rate-setting authority is unclear in U.S. courts. Although some U.S. courts have been

willing to set global FRAND rates when both parties request such a determination,²⁵ others have questioned their own jurisdiction to adjudicate the appropriate royalty for a foreign patent.²⁶ The opinion by the Federal Circuit in *TCL v. Ericsson* opinion, which held that valuing a worldwide release for past use of the plaintiff's SEP portfolio was a damages issue for the jury, only adds to the confusion.²⁷ As one UK court has argued, the *TCL* holding presumes that U.S. courts have jurisdiction to determine damages for infringement of foreign patents²⁸ – a presumption that runs contrary to other U.S. case law.²⁹

Royalty-Setting Procedure

FRAND royalties are typically decided in an ad hoc fashion through after-the-fact negotiations or litigation. The EU could be the first to break from that tradition to set (or at least place guardrails around) FRAND royalties on a prospective, potentially industry-wide basis. The proposed EU Regulations include, for example, procedures through which interested parties could establish an aggregate royalty for a standard before or shortly after its publication.³⁰ The proposed EU Regulations would also require that, before litigating any particular SEP licensing dispute in Europe, the parties must engage in mandatory conciliation (FRAND determination) and seek a non-binding recommendation on the applicable FRAND royalty, also taking into account the impact of the FRAND terms and conditions on the value chain.³¹

Understanding the comparative legal landscape across these jurisdictions is critical to strategic choices such as where to file SEP disputes and how best to defend against them.

Which SEPs Are Subject to FRAND?

The term “FRAND” is often used interchangeably to describe both SEP owner obligations defined in SDO policies (such as non-discrimination, granting licenses to any entity that requests one, etc.) and the proper royalty amount for an SEP license, which is typically not addressed in SDO policies. In the United States, courts enforce SDO obligations as contracts binding SEP owners that have committed to license their SEPs on

FRAND terms (either explicitly or implicitly, by virtue of participation in an SDO).³² But when calculating royalties for use of SEPs, U.S. courts typically apply the same principles irrespective of whether the SEP owners have committed to FRAND licensing.³³

Given the European focus on abuse of market power rather than contractual promises, one would expect European authorities to apply FRAND analysis to any patent that is technically essential to a standard, irrespective of whether the SEP owner made any FRAND commitment to the SDO. Surprisingly, the EU Regulations as originally proposed would have applied only where “the SEP holder has made a commitment to license its SEPs on” FRAND terms.³⁴ The January 2024 amendments, however, are more consistent with the European competition law perspective on FRAND: as approved by the European Parliament, the EU Regulations would apply to any SEP that an SEP holder “claims to be essential . . . regardless of whether the SEP holder has or has not made” a FRAND commitment.³⁵ And even outside of the proposed EU Regulations, whether and what FRAND obligations will apply even without a FRAND commitment declaration is under discussion in Europe.³⁶

These emerging differences will impact strategy for both SEP owners and implementers in the coming years. Understanding the comparative legal landscape across these jurisdictions is critical to strategic choices such as where to file SEP disputes and how best to defend against them.

Notes

1. See <https://www.itu.int/en/ITU-T/about/Pages/development.aspx> and <https://www.itu.int/en/ITU-T/about/Pages/approval.aspx>.
2. See, e.g., ECJ, *Huawei v. ZTE*, Case C-170/13, EUR-Lex – 62013CJ0170 – EN – EUR-Lex (europa.eu); Summary of Commission Decision of 29 April 2014, OJ 2014/C 344/06, EUR-Lex – 52014XC1002(01) – EN – EUR-Lex (europa.eu).
3. See, e.g., *Apple, Inc. v. Motorola Mobility, Inc.*, 886 F.Supp.2d 1061, 1078 (W.D. Wis. 2012); *Microsoft Corp. v. Motorola, Inc.*, 854 F.Supp.2d 993, 998-99 (W.D. Wash. 2012); and *Realtek Semiconductor Corp. v. LSI Corp.*, 946 F.Supp.2d 998, 1005 (N.D. Cal. 2013). Note that the U.S. Department of Justice has weighed in on potential competition-related issues related to FRAND licensing, for example, as to SDOs and patent pools. See,

- e.g., Justice Department Issues Business Review Letter for Proposed University Technology Licensing Program, Jan. 13, 2021, available at <https://www.justice.gov/opa/pr/justice-department-issues-business-review-letter-proposed-university-technology-licensing>, and Justice Department Updates 2015 Business Review Letter To The Institute Of Electrical And Electronics Engineers, Sept. 10, 2020, available at <https://www.justice.gov/opa/pr/justice-department-updates-2015-business-review-letter-institute-electrical-and-electronics>.
4. *Id.*
 5. *FTC v. Qualcomm, Inc.*, 969 F.3d 974, 997 (9th Cir. 2020); see also *Apple*, 886 F.Supp.2d at 1076-77 (rejecting antitrust claim based on alleged FRAND breach).
 6. See, e.g., Court of Appeal [2018] EWCA Civ 2344 and High Court [2017] EWHC 711 (Pat).
 7. See Proposal for a Regulation of the European Parliament and of the Council on Standard Essential Patents and Amending Regulation (EU) 2017/1001, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2023%3A232%3AFIN>.
 8. A. Houldsworth, EU SEP regulation voted through key parliamentary committee, despite mass abstentions, https://www.iam-media.com/article/eu-sep-regulation-voted-through-key-parliament-committee-despite-mass-abstentions?utm_source=Nokia%2Band%2BOppo%2Bsign%2B5G%2Bpatent%2Bcross-licence%2Bagreement&utm_medium=email&utm_campaign=IAM%2BDaily. Perhaps the most significant change effected by the amendments is the addition of an escape clause: the provisions allowing conciliation and non-binding expert opinions on the aggregate royalty and requiring a FRAND determination before filing an SEP infringement action would not apply where the EU Commission determines that “SEP licensing negotiations on FRAND terms and conditions do not give rise to significant difficulties or inefficiencies affecting the functioning of the internal market as regards identified implementations of certain standards or parts thereof.” Compromise Amendments to the Proposal for a Regulation of the European Parliament and of the Council on standard essential patents and amending Regulation (EU) 2017/1001 (EU Regulations) at Art. 1.3, https://www.europarl.europa.eu/meetdocs/2014_2019/plmrep/COMMITTEES/JURI/DV/2024/01-24/15_Votinglist_SEPs_EN.pdf.
 9. C. Gittinger et al., European Parliament moves SEP regulation forward, <https://technologyquotient.freshfields.com/post/102j1db/european-parliament-moves-sep-regulation-forward>.
 10. A. Houldsworth, European Parliament adopts SEP regulation while UK takes different path, www.iam-media.com/article/european-parliament-adopts-sep-regulation-while-uk-takes-different-path?utm_source=European%2BParliament%2Badopts%2BSEP%2Bregulation%2Bwhile%2BUK%2Btakes%2Bdifferent%2Bpath&utm_medium=email&utm_campaign=IAM%2BDaily.
 11. There have, however, been proposals for litigation-based approaches to FRAND licensing disputes in the United States. See, e.g., Bartlett, Jason and Contreras, Jorge L., “Rationalizing FRAND Royalties: Can Interpleader Save the Internet of Things?” 36 *Review of Litigation* 285 (2017), University of Utah College of Law Research Paper No. 185, available at SSRN: <https://ssrn.com/abstract=2847599>, and the Standard Essential Royalties Act (SERA), available online at <https://files.lbr.cloud/public/2022-10/SERA%20analysis.pdf?VersionId=Yv.ghJnStEzAhZ804HLS8JZkqlhLvChx>.
 12. See A. Morris, Prospect of European SEP regulation looms large in U.S. policy debate - IAM ([iam-media.com](https://www.iam-media.com)), <https://www.iam-media.com/article/prospect-of-european-sep-regulation-looms-large-in-us-policy-debate>.
 13. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006).
 14. See, e.g., *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1332 (Fed. Cir. 2014); *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872, 885 (9th Cir. 2012); and *Realtek Semiconductor Corp. v. LSI Corp.*, 946 F.Supp.2d 998, 1006-07 (N.D. Cal. 2013).
 15. *Huawei Technologies Co Ltd v ZTE Corp* (Case C-170/13) [2015] CMLR 14.
 16. *Id.*
 17. See, e.g., [2021] EWHC 2564 at ¶ 20.
 18. *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201, 1232 (Fed. Cir. 2014).
 19. See COM(2017) 712 final, <https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A52017DC0712>, section 2.1.
 20. *Optis*, 2023 EWHC 1095 (Ch) at ¶ 228; *Interdigital Tech. Corp. v. Lenovo Group Ltd.*, 2023 EWHC 539 at ¶ 168.
 21. *TCL Communication Tech. v. Telefonaktiebolaget*, 943 F.3d 1360 (Fed. Cir. 2019).
 22. See *Optis*, 2023 EWHC 1095 (Ch) (applying top-down analysis to calculate FRAND royalty); see also *Unwired Planet Int'l Ltd. v. Huawei Techs. (UK) Co. Ltd.*, 2017 EWHC 711 (using top-down analysis as cross-check on benchmark royalty calculation) and *Interdigital Tech. Corp. v. Lenovo Group Ltd.*, 2023 EWHC 539 (same).
 23. *Optis*, 2023 EWHC 1095 (Ch) at ¶¶ 24, 503.
 24. EU Regulations at Art. 3, Recital (8) and Art. 38.6. The UK and (potentially) EU are not alone in their willingness to determine global royalty rates for SEPs. Chinese

- courts have also exercised jurisdiction over global rate-setting. See, e.g., A. Winger, “China’s Supreme People’s Court Again Affirms Right to Set Global Licensing Rates for Standard Essential Patents,” Sept. 12, 2023 (available at <https://www.natlawreview.com/article/china-s-supreme-people-s-court-again-affirms-right-to-set-global-licensing-rates>).
25. See, e.g., *TCL v. Ericsson*, 2017 WL 4488286 at *3-4 (C.D. Cal. 2017) (noting the parties agreed to seek a determination of a worldwide rate) and *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872, 885 (9th Cir. 2012) (finding Motorola waived objection to global FRAND determination by district court).
26. See, e.g., *Optis Wireless Tech., LLC v. Huawei Techs. Co.*, 2018 WL 3375192, at *8 (E.D. Tex. July 11, 2018).
27. *TCL*, 943 F.3d at.
28. *Interdigital*, 2023 EWHC 539 at ¶ 252.
29. See, e.g., *Voda v. Cordis Corporation*, 476 F.3d 887, 897-905 (Fed. Cir. 2007).
30. See EU Regulations at Arts. 15-18.
31. See EU Regulations at Arts. 34-58. Note, however, that this requirement is subject to the “escape clause” discussed in footnote 8.
32. See, e.g., *Microsoft*, 854 F.Supp.2d at 999 (“The court agrees with Microsoft that through Motorola’s letters to both the IEEE and ITU, Motorola has entered into binding contractual commitments to license its essential patents on RAND terms.”) and *Realtek*, 946 F.Supp.2d at 1006 (“[D]efendants are contractually obligated under their Letters of Assurance to the IEEE to license the ’958 and ’867 patents on RAND terms.”).
33. See, e.g., *Commonwealth Sci. & Indus. Rsch. Organisation v. Cisco Sys., Inc.*, 809 F.3d 1295, 1304 (Fed. Cir. 2015) (holding the *Ericsson v. D-Link* special apportionment issues apply to all SEPs); *In re Innovatio IP Ventures, LLC*, 2013 WL 5593609 at *42-43 (N.D. Ill. Oct. 3, 2013) (including undeclared SEPs in denominator of top-down analysis). But see *TCL*, 2017 WL 4488286 at *15-18 (including only declared SEPs in denominator of top-down analysis).
34. See, e.g., EU Regulations at Art 1.2.
35. *Id.*
36. See, e.g., H. Tsilikas, *Antitrust Enforcement and Standard Essential Patents: Moving beyond the FRAND Commitment*, 2017, p. 57. For example, German courts have decided that a subsequent SEP owner even without express declaration is directly and unconditionally bound by the FRAND commitment of its legal predecessor: see, e.g., Higher Regional Court Düsseldorf, ECLI:DE:OLGD:2019:0322.2U31.16.00, margin no. 169 et seqq, [https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:82019DE0322\(51\)&from=EN](https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:82019DE0322(51)&from=EN).

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