Alliance Journal of Intellectual Property Law (AJIPL)
Volume: 3, Issue: 1, 2025 | e-ISSN: 2584-0363

STANDARD ESSENTIAL PATENT AND FRAND LICENSING: COMPARATIVE PERSPECTIVES FROM JAPAN, CHINA, AND INDIA

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ABSTRACT

A 'standard' in the field of technologies like 4G, 5G is crucially important for interoperability and interactions between devices. These technical 'Standards' are set by organizations in respective fields of technology and are popularly called Standard Setting Organization (*hereafter referred as SSO*). Standard Essential Patent (*hereafter referred as* SEP) refers to a patent over an invention which has been acknowledged by the SSO, and such patent helps in implementation of the technical standard. Since holders of SEPs can exploit such standards in a monopolistic way, SSOs had innovated the concept of "Fair, Reasonable and Non-discriminatory" (*hereafter referred as* FRAND) licensing terms. However, the interpretation and enforcement of FRAND obligations vary significantly across jurisdictions.

This paper takes a closer look at how Japan, China, and India, three leading Asian economies, are shaping the legal and policy landscape around SEPs and FRAND licensing and navigating the complex legal challenges that come with balancing innovation, public interest, and market fairness. In India, although there is no dedicated law on SEPs, the judiciary has taken a proactive stance in landmark cases involving Ericsson, Philips, and InterDigital, while the Competition Commission of India (*hereafter referred as* CCI) has stepped in to assess claims of unfair licensing and abuse of dominance. China has taken a more assertive attempting to set global FRAND royalty rates and have issued anti-suit injunctions (*hereafter referred as* ASI*)*, signalling a willingness to lead the global conversation on SEP disputes. Japan, meanwhile, offers a contrast with its measured, policy-led approach guided by detailed frameworks issued by the Ministry of Economy, Trade, and Industry (*hereafter referred as* METI) and the Japan Patent Office (*hereafter referred as* JPO).

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By examining these three Asian jurisdictions, this paper explores how each country is trying to find the right balance between protecting patent holders' rights, ensuring fair market access for implementers, and safeguarding the broader public interest.

Keywords: Standard Essential Patent, India, FRAND Licensing, monopoly.

INTRODUCTION

In the complex world of modern information technologies, there is a growing tension between the need for access to SEPs and the rights of patent holders of such SEPs. While standard essential patents refer to patent rights over standard specifications which are necessary for essential functions in specific industries, the patent law also gives patent holders the exclusive right to authorise use of their patent. A basic definition of SEP can be elaborated as following:

"*A given patent is essential to a standard if use of the standard required infringement of the patent, even if acceptable alternatives of that patent could have been written into the standar*d"[2].

The standards are essential for the purpose of interoperability and interaction between different devices which may be used in one or several industries together. These standards are administered by standard setting organisations which are known as SSOs. On other hand, patent law gives exclusive right to the patentee. This exclusive right is the backbone for commercialisation of patents whereby patent holders negotiate with prospective licensees on the terms and fees of such licensing. When the SSOs declare a particular technology to be a standard, the patent holder over such technology may misuse this status as an SEP and ask for exorbitant rates of licensing. Further, such patent holder may refuse to license SEPs and club such patents with other non-essential patents for the purpose of licensing.

On one hand it may be argued that the prospect of licensing such patents play a significant role as an incentive to invest in standardisation activities and development of newer technologies party exclusive rights and other hand patent holders may defeat the very objective of declaring such technology to be standards which are available for public use. This problem is further complicated by the fact that when standards are developed and implemented, there are few companies who choose to cross licence their patent portfolios and thereby multifunctional elements of different technologies need multiple licensing there is a probability that in such cases royalty-stacking happens because of the fragmented ownership of SEPs.

In SEP licensing both the patent holders as well as implementer of the technological standards are at disadvantage if the terms of the licensing agreement are not FRAND compliant. If royalties are too high, it will be an access barrier to implementor, but the patent holders also need to recoup their investment and gain fair revenue to make the R&D worthy.[3] While patent holders may complain about avoidance of paying fair revenue for licensing of SEPs by implementers, the implementers fear extra-FRANDly licensing terms being imposed in garb of enforcement of patent rights. Before delving into jurisdictional analysis of legal regime relating to SEP licensing, Part II of this article identifies and explains different hurdles in SEP licensing and the theories associated therewith.

SEP LICENSING AND THEORETICAL BACKGROUND.

To introduce the problems relating to SEP licensing we need to introduce the following concepts and highlight the challenges thereby:

Hold-Up vs. Hold-Out

One of the basic challenges of SEP licensing is the fact that there is a potential of abuse by SEP

2. *Microsoft Corp. v. Motorola Inc*., 696 F.3d 872 (9th Cir. 2012).

3. András Jókúti, *A FRAND in Need: Why Establishing Standardized Technologies Is So Complicated*, WIPO MAG., Dec. 9, 2024, https://www.wipo.int/web/wipo-magazine/articles/a-frand-in-need-why-establishing-standardized-technologies-is-so-complicated-69933.

holders to out-leverage their SEPS and threat to initiate patent infringement suits. This situation is called a "***patent holdup***". Patent hold up happens as patent owners exercise their negative right to exclude others from use of the patented invention. This practice has the potential to disrupt technological developments and create access problems for global markets of equipment's and services[4]. Patent holders of agreed standards can wield excessive power by demanding exorbitant royalties from implementers and threatening or obtaining injunctions to enforce compliance.[5] Even where the patent relates to a small component of the product or service, the disputed patent gives the right to patent holder to shut the product from the market, thus allowing patent holder the power to negotiate for a higher royalty.[6] Patent hold ups thereby prevent effective access to the standard[7] and have elements of anti-competitiveness. Such hold-ups are often prevented by courts who deny in junctions in certain circumstances[8].

In contrast, the other possibility is where the implementer of the technology systematically denies fair compensation through challenging royalty rates. The implementers may unreasonably delay the licensing process or cause other complications[9]. With efforts to force the right holders to lower their rates of royalty for SEPs just to get paid in a reasonable time frame which may be far lower than fair or reasonable terms of such licensing. This is known as ***patent holdout*** (also known as ***reverse hold-up***) and must also be deterred to counterbalance the problem. The national nature of patent rights makes it extremely difficult (if not impractical) for patent owners to protect inventions used in globally manufactured and sold products because to enforce their rights, patent holders had to initiate proceedings in each individual country. Implementers could exploit this by forcing litigation across multiple jurisdictions, increasing costs and complexity. Even if outcomes were consistent across courts, the process remained burdensome. In licensing world, patent holdup may pose greater harm from a competition standpoint than holdout as it has the potential to exclude manufacturers from implementing a standard. The courts across the jurisdiction have used interim payouts or deposits as a way of ensuring that the rights of the SEP holders are protected in long term.

While one may argue that hold-up issues in SEP litigations are more within the jurisdiction of competition authorities to probe because of potential chances of abuse of dominance and hold-out issues should fall essentially under the scope of commercial disputes to be dealt by domestic courts; the fact that both hold up and hold out of steps licensing has direct connection with competitive relationship between the patentee and the potential infringer makes such patent litigation more complex.

An example of such SEP hold-up situation is when in 2012 the European Commission expressed their concern regarding a holdup against potential licensing by Google while approving Google's acquisition of Motorola Mobility including its SEP portfolio[10]. Similarly in 2014 when European Commission was considering the alleged infringement of SEPs in *Motorola Mobility v.*

4. *Optis Cellular Tech. LLC v. Apple Retail UK Ltd.*, [2023] EWHC 1095 (Ch) (Eng.).
5. *Ibid.*
6. Stephen M. McJohn**,** *Book Review: Leverage: Review of Dan L. Burk & Mark A. Lemley, The Patent Crisis and How the Courts Can Solve It*, [2010] Indian J.L. & Intell. Prop. **7.**
7. Matthew Heim, *The Focus in Europe Moves from Patent Hold-Up to Hold-Out: Recent Evidence and Its Impact*, IAM (Jan. 24, 2020), https://www.iammedia.com/article/holdoutineuroperecentevidenceanditsimpact.
8. Florian Mueller**,** "*Getting the EU SEP Regulation Right—Part 1: Hold-Up vs. Hold-Out*, IP Fray (Feb. 29, 2024), https://ipfray.com/gettingtheeusepregulationrightpart1holdupvsholdout/.
9. S.K. Shrestha**,** *Trolls, or Market-Makers? An Empirical Analysis of Non-Practising Entities*, 110 Colum. L. Rev. 114 (2010).
10. Heim, *supra* note 6.

Apple[11], the Commission considered Motorola's argument of patent hold out.

Legal Nature of the FRAND Commitment

The second issue which is to be investigated is whether the obligation of FRAND commitments originates in a jurisdiction as contractual obligations, a duty under good faith principle or an area governed by competition law. This question is important because FRAND commitments are a result of voluntary contract between SEP holders and SSOs, the patent holders may thereby decline membership to SSO and have no FRAND obligations. The question of enforceability off the SEP licensing thereby becomes a question of contract law only. In such case, the focus whether the terms of licensing are FRAND compliant should be determined on the language of the contract, the preexisting understanding of the industry as to what is the FRAND undertaking, the negotiation history and subsequent action taken by SEP holder.[12] FRAND licensing commitments made in good faith are a part of contract doctrine and whether an SEP holder and an implementer have conducted their FRAND negotiation in good faith.[13]

In contrast there are jurisdictions like the European Union where the laws primarily focus that the fulfilment of FRAND obligations be evaluated on competition law principles as reflected in "*Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements*".[14]

Aggregation of Patent Pools for Joint Licensing and Royalty Stacking

Patent Pools are often created by patentees interested in licensing some of their patents to each other or to third parties and the administration of the licensing happens through independent organizations or join ventures who retain a fee in lieu of same.[15] When patent pooling leads to a situation of creation of patent thickets, there is a possibility of implementers find a high risk in implementation of a standard due to a higher markup of royalty in lieu of licensing of the whole patent thicket (which may include non-essential patents to the standard too) or fear of injunction due to infringement of patent pools. While these apprehensions continue, the European Commission has taken a favourable approach towards patent pool licensing which may spur innovation while it maintains a scrutiny of any controversial patent aggregation which may include a dominant patentee's licensing or threat of enforcement through suit or injunction.[16]

Royalty stacking may happen when in a license agreement there are number of overlapping patents. Thereby the manufacturer of the product must pay royalty have to pay royalty for all these patents instead of the actual contribution of single patent to the product.[17] The royalty stacking fee whereby is the total amount what the implementer pays for access to the standard which may involve diverse patent licences. The patent pool and royalty stacking becomes a problem for implementer if such fee is an extremely high price to pay for implementation of the standard.

11. *Apple Inc. v. Motorola, Inc.*, No. 12-1548 (Fed. Cir. Apr. 25, 2014).
12. Roger G. Brooks & Damien Geradin, *Interpreting and Enforcing the Voluntary FRAND Commitment*, 9 Int'l J. of IT Standards & Standardization Res. 1, 1 (2011), https://www.cravath.com/a/web/536/3234075_1.pdf.
13. J. Gregory Sidak, *Negotiating FRAND Licenses in Good Faith*, Criterion Econ. (Dec. 2019), https://www.criterioneconomics.com/sidak-negotiating-frand-licenses-in-good-faith.html.
14. Communication from the Commission, *Guidelines on the Applicability of Article 101 of the Treaty on the Functioning of the European Union to Horizontal Cooperation Agreements* (2023/C 259/01), 2023 O.J. (C 259) 1, https://eurlex.europa.eu/legalcontent/EN/TXT/?uri=OJ%3AJOC_2023_259_R_0001.
15. J. Lerner & J. Tirole, *Efficient Patent Pools*, 94 Am. Econ. Rev. 691 (2004).
16. COM (2023)232 - Proposal for a regulation of the European Parliament and of the Council on standard essential patents and amending Regulation (EU) 2017/1001.
17. Leiner & Tirole, *supra* note 14.

Determination of Royalty Methods

There are different approaches for determining what should be the appropriate royalty rate during SEP licensing. The most popular ones are the "*bottom-up approach"* and the "*top-down approach"*. In the "*bottom-up approach"* the royalties are determining are determined by finding the value of individual steps which are components of the licence agreement. Thereby different royalty calculation criteria and factors are considered by courts while determination off SEP licensing rates using bottom-up approaches. This needs to be apprehension that aggregate royalty is calculated through bottom-up manner will surpass a product's total selling price by a huge magnitude than when calculated through top-down model.[18]

While in *top-down approach* the courts calculate the aggregate possible royalty which is to be earned by the entire suit of recipes in the license agreement and then apportion the fraction off the aggregate royalty which is to be earned by the patents in litigation before court[19]. Deep benefit of top-down model calculation start it implicitly recognises that a single standard may be covered by multiple patents and therefore the rate which is charged by a single SEP holder affect the royalty rate that other SEP holders can obtain from single downstream manufacturer[20]. This helps in avoiding many of the drawbacks which are associated with the other approach. One of the ways of determination of aggregate loyalty levels is true joint agreement by members of the SDO.[21] But very few SDOs have endorsed these joint royalty negotiations, probably because of the perceived risk of anti-competition liabilities arising song negotiation of such patent pools among competitors[22].

Examples of use of top-down model of royalty calculation in SEP litigations are available cross borders. For example, the Northern District of Illinois ' district court in United States in *Innovatio* case[23] apportioned a fraction of the aggregate per product royalty for Wi-Fi standard which was determined to be at $1.80. While the UK High Court in 2017[24], first determined the aggregate royalty burden by reference to public statements made by other SEP holders in respect of royalties on the standards in question. Then the UK High Court asserted the portion of plaintiff's share in the patent pool of SEP portfolio by using filters like essentiality of such patent. In *Samsung v. Apple Japan*, the "Japanese Intellectual Property High Court" attributed the Samsung a portion of the 5% aggregate royalty for UMTS essential patent.

The origin of both these methods of royalty calculation has their base in the "*theory of patent holdup*" and "*royalty stacking*" whereby it is said that excess royalties are brought by additional monopoly power which is due to the standardization process of technologies.[25]

There are other arguments that royalty calculation should happen to "*comparable method*" which is based on "*price theory*" as it allows the court to distinguish between the observed royalty rates in a competitive market and royalty rate

18. Leiner & Tirole, *supra* note 14.
19. Alexander Galetovic & Stephen Haber, *SEP Royalties: What Theory of Value and Distribution Should Courts Apply?*, 17:2 Ohio St. Tech. L.J. 189 (2021) https://www.law.berkeley.edu/wp-content/uploads/2021/05/Galetovic_Haber.
20. Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 **Tex. L. Rev.** 1991, 2011 (2007) https://www.researchgate.net/publication/228230427_Patent_Holdup_and_Royalty_Stacking.
21. Jorge L. Contreras, *Aggregated Royalties for Top-Down FRAND Determinations: Revisiting "Joint Negotiation,"* 62 Antitrust Bull. 690 (2017), https://doi.org/10.1177/0003603X17733347.
22. *Id.*
23. *In re Innovatio IP Ventures, LLC Patent Litigation*, No. 11-C-9308, 2013 U.S. Dist. LEXIS 144061, at *62 (N.D. Ill. Sept. 27, 2013).
24. *Unwired Planet Int'l Ltd. v. Huawei Techs. Co.*, [2017] EWHC 711 (Pat) (Eng.).
25. *Id.*

which emerged from monopolised markets.[26] the comparable royalty rate determination is based on theories for mainstream economics. However, the primary criticism of the "*comparable method*" is that every portfolio and transaction is different in nature and access to individual licensing agreements is difficult as they are not publicly disclosed.

For example, the District Court of California in *TCL v. Ericsson case*[27] the litigation was relating to worldwide licenses on steps relating to 2G 3G and 4G owned by Ericsson, the court applied both "*top-down approach*" as well as "*comparable approach*" to determine royalty.

Role of ASIs.

ASIs are granted to aid implementers to neutralise the anti-competitive behaviour of SEP holders who do not hold up to their commitment to license steps on FRAND basis[28]. The objective of an ASI is thereby to reduce the costs associated with defending cases in various jurisdictions and this also in turn results in avoidance of conflicting decisions in parallel jurisdictions[29]. But one of the challenges imposed by anti-anti-suit injunctions (*hereafter referred as* AASIs) is that it undermines the principle of comity which puts an obligation on a State to recognize "*within its territory to the legislative, executive, or judicial acts of another nation*".[30] Thus, anti-suit injunctions though every common to SEP litigations, should be restricted to rare cases where such injunction is necessary to prevent an irreparable miscarriage of justice.[31]

There has been a rise in AASI claims by SEP holders against implementers and had made many question whether SEP licensing litigations are spinning out of control[32]. Generally, AASI orders were common only to common law jurisdictions but courts in civil law countries have also started issuing these orders which help a party effected by anti-suit injunction to prevent enforcement of the foreign jurisdiction award.[33] Notably German courts are proactive in issuing AASIs as in cases like *HEVC Advance v. Xiaomi*, *InterDigital v. Xiaomi*, *IP Bridge v. Huawei*, etc…[34]

JAPAN'S APPROACH TO SEPS AND FRAND LICENSING

Japan is a highly competitive market best company where immense technological evolution is happening over centuries. As one of the frontier countries in technological leaps from Asia it is important to investigate Japan's approach towards SEP licensing and determination of FRAND Terms.

The JPO has prepared "*The Guide to licensing negotiations involving Standard Essential Patents 2022 (2nd edition)*"[35] which deals with licensing methods and royalty calculation methods. The royalty calculation methods which are discussed in this guideline involves reasonable royalties

26. *Id.*
27. *TCL Commc'n Tech. Holdings, Ltd. v. Ericsson Inc.*, No. 8:14cv00341JVSDFM, 2017 U.S. Dist. LEXIS 214003 (C.D. Cal. Dec. 21, 2017).
28. Enrico Bonadio & Nicola Lucchi, *Antisuit Injunctions in SEP Disputes and the Recent EU's WTO/TRIPS Case Against China*, 26 J. World Intell. Prop. 477 (2023), https://doi.org/10.1111/jwip.12275.
29. *The Outlook for SEPs in 2025: Anti-Suit Injunctions, DOJ Policy and GenAI*, IPWatchdog (Mar. 21, 2025), https://ipwatchdog.com/2025/03/21/the-outlook-for-seps-in-2025-anti-suit-injunctions-doj-policy-and-genai/id=187157/.
30. *Hilton v. Guyot*, 159 U.S. 113, 163–64 (1895).
31. Timothy R. Tang, *Balancing Comity with Antisuit Injunctions: Considerations Beyond Jurisdiction*, 20 J. Legis. 267 (1994).
32. Felix K. Hess, *US Anti-Suit Injunctions and German Anti-Anti-Suit Injunctions in SEP Disputes*, 25 J. World Intell. Prop. 536 (2022) https://doi.org/10.1111/jwip.12240.
33. *Id.*
34. *Id.*
35. Japan Patent Office, *Guide to Licensing Negotiations Involving Standard Essential Patents*, 2d ed. (July 2022), https://www.jpo.go.jp/e/system/laws/rule/guideline/patent/document/rev-seps-tebiki/guide-seps-en.pdf.

determine through bottom-up approach and top-down approach. The guidelines also focus on other factors which are relevant for determination of royalties during SEP licensing search including number of licenses who have agreed to such royalty rates, the scope of the license agreement, the essentiality or question of validity or infringement of SEPs, value of individual patterns and the negotiating history between the parties involved.

The JPO's 2020 SEP guidelines on so involve the principle of goodwill in relation to five different steps during the licensing negotiations. The guidelines specifically mention that there are two different aspects of FRAND licensing and this includes:

1. the negotiation process number
2. the terms of the licence agreement.

Guidelines specify that simply satisfying various elements in this guide will not be a guarantee of good faith being involved in the licence agreement rather it has to be seen that the negotiating process as a whole of the licence agreement between the SEP holder and the implementer should be reflecting good faith on part of the tombs offered from the licence holder as well as the willingness of the implementer to obtain a license without causing undue delay in the licensing procedure.[36] Guidelines by the JPO has been perceived to be an SEP implementer friendly regime as the focus is on not only the terms of the licence but also license procedure. The published guidelines for SEP licensing negotiations focus on 3 overall principles 1) licence to all, 2) top-down approach and 3) proportionality rule[37].

The "Competition Enhancement Office" and the "Intellectual Property Policy Office" in Japan under the METI has also set up "SEP study groups" which consists of more than 150 members who are experts from different fields like manufacturing automotive, telecom, home appliances and many more to discuss undeveloped comprehensive framework relating to SEP licensing and FRAND Terms. In 2022, the METI also released its own guidelines titled "*Good Faith Negotiation Guidelines for Standard Essential Patent Licenses*" which was prepared to bring predictability and transparency to the negotiations between SEP holders and implementers.[38] Though not legally binding, these norms were developed considering the feedbacks given by both domestic and international experts regarding SEP licensing environment in Japan.[39]

Japanese intellectual property High Court has used the *top-down approach* of royalty calculation in *Samsung v. Apple Japan*[40]. In Japan, Apple filed a case against Samsung for violation of 7 Apple's patents by Samsung Galaxy mobiles and tablets, the Tokyo District Court originally held that Samsung has not infringed on any of Apples' patents and after this Samsung counter-sued Apple in Japan for violation of its own SEPs relating to cellular phone[41]. The Intellectual Property High Court on 529 feet in families which were involved in the SEP dispute and calculated the aggregate royalty and thereafter calculated Samsung share of royalty thereby.[42] The grand panel of IP High Court decline injunction and rule that Samsung should not seek damages it exceedingly approximately $100,000 as seeking damages more than the

36. *Id.,* at 10.
37. Tim Pohlmann, *The SEP Couch: Shogo Matsunaga on SEPs and the Law in Japan*, IPWatchdog (May 1, 2024), https://ipwatchdog.com/2024/05/01/sep-couch-shogo-matsunaga-seps-law-japan/id=176060/.
38. Good Faith Negotiation Guidelines for Standard Essential Patent Licenses ,https://www.meti.go.jp/english/policy/economy/chizai/gfn_guidelines.html
39. Difference between the METI's Guidelines and the JPO guide , https://www.meti.go.jp/policy/economy/chizai/sep_license/diff-METIguidelines-JPOguide-en.pdf
40. *Samsung v. Apple*, Case No. 2013 (Ne) 10043 (IP High Ct., May 16, 2014) (Japan).
41. Pholmann, *supra* note 36.
42. *Samsung v. Apple*, Case No. 2013 (Ne) 10043 (IP High Ct., May 16, 2014) (Japan), https://www.wipo.int/wipolex/en/text/594196.

royalty under FRAND conditions was an abuse of right unless special circumstances existed, with SEP implementers being considered "*unwilling licensees*"[43].

CHINA'S APPROACH TOWARDS SEP AND FRAND LANDSCAPE

In China, the FRAND licensing terms in SEP licensing are determined by "Anti-Monopoly Law" (*hereafter referred as* AML) and "State Administration for Market Regulation" (*hereafter referred as* SAMR)'s intervention in SEP licensing. In 2023, AML was amended through four regulations:

1. Regulation Prohibiting Monopoly Agreements ("Agreements Regulation").
2. Regulation Prohibiting Conduct Abusing a Dominant Market Position ("Abuse of Dominance Regulation").
3. Regulation on the Review of Concentrations between Business Operators ("Merger Review Regulation").
4. Regulation Preventing Conduct Abusing Administrative Powers to Eliminate or Restrict Competition ("Administrative Monopoly Regulation").

Recently in 2024, SAMR also released "*Anti-Monopoly Guidelines for Standard Essential Patents"* with the aim to reconcile intellectual property policies in China with the competition policies through a supervisory mechanism which facilitates "ex-ante and in-process supervision" so that SEPs do not become tool for excluding or restricting competition in the market.[44] Recognizing that there are risks of antitrust conducts with SEP patent pools, the guidelines emphasizes on "good conduct" and lists out factors which can help in deciding whether the SEP licenses are monopolistic in nature.[45] If a SEP holder is found in dominant position in the market, competition authorities can step in and check whether such position is being misused for:

- High royalties which are not justified
- Non-exclusive grant back license or
- Typing up of licenses (Article 15)

Further the guidelines under Article 16 points out that "no-challenge" requirements in SEP licenses are harmful to market competition as the implementer should be able to challenge the SEP to exclude invalid patents from further protection[46].

Some of the landmark judgements in relation to Chinese FRAND jurisprudence are on royalty rate settings and anti-suit injunctions are discussed hereby. One of the first cases on anti-suit injunction and global rate setting for SEPs is the *OPPO v. Sharp Corporation*[47] 2020. Japan based company Sharp was the holder of steps for 3G,4G, Wi-Fi and high efficiency video coding and filed suits against Oppo for violation of its patents in several countries like Germany, Japan, and other jurisdictions. Oppo, the Chinese company, filed a case in the "Shenzhen Court of China" to confirm that Sharp Corp. had violated FRAND licensing terms in respect to these SEPs[48]. This case is significant because the "Intellectual Property Court of Supreme People's Court of China" had ruled in this case that Chinese quotes have jurisdiction over global licensing

43. Pholmann, *supra note* 36.
44. SAMR Releases Antitrust Guidelines for SEPs, https://www.kwm.com/cn/en/insights/latest-thinking/samr-releases-antitrust-guidelines-for-seps.html
45. *Id.*
46. Anti-Monopoly Guidelines for Standard Essential Patents, 2024, art. 16.
47. *Sharp Corp. & ScienBizip Japan Corp. v. OPPO Guangdong Mobile Telecomms. Co. & Shenzhen Branch of OPPO Guangdong Mobile Telecomms. Co.*, Zhi Min Xia Zhong No. 517 (2020) ((2020) 最高法知民辖终517号) (Sup. People's Ct. Aug. 19, 2021) (China).
48. Zhongren Cheng, *The Chinese Supreme Court Affirms Chinese Courts' Jurisdiction over Global Royalty Rates of Standard-Essential Patents: Sharp v. Oppo*, Berkeley Tech. L.J. Blog (Jan. 2022), https://btlj.org/2022/01/the-chinese-supreme-court-affirms-chinese-courts-jurisdiction-over-global-royalty-rates-of-standard-essential-patents-sharp-v-oppo/#note-2.

terms and can set global SEP rates and terms.[49] The court in this case relied on the "*principle of closer connection*" as ask parties were willing to reach a global licensing agreement and a high proportion of the relevant Sep portfolio contents Chinese recipes and the place of implementation as well as licensing regular has happened in China, thereby established jurisdiction[50].

Another important case is the *Conversant v. Huawei*[51], where Huawei filed the case in "Nanjing Intermediate People's Court of Jiangsu" province for a declaration of non-infringement of three Chinese SEPs as held by Conversant. By the time Conversant challenged the verdict of first instance and appealed to the "Supreme People's Court", German Court had already ruled that Huawei and its German affiliates infringed on European patents of Conversant. In lieu of this, Huawei filed an application for behaviour preservation (anti-suit injunction) with the "Supreme People's Court", requesting to prohibit Conversant from applying for enforcement of the German court's judgment until Chinese Supreme Court makes the final decision.

Similarly, in "*Samsung v. Ericsson"* case[52], where Samsung, the implementor of Ericsson's SEPs had filed a lawsuit in Wuhan, China, and obtained an ASI and in *Xiaomi v. Interdigital*[53], the Wuhan Court granted an ASI against Interdigital. It has been observed that Chinese courts while considering the balance of interest between a SEP holder and implementor, it favours the practicing more than the SEP[54].

Chinese courts have adopted diverse methods for royalty calculation like the top-down approach in *Oppo v. Nokia* 2023[55] and through comparable licensing approach on *ACT v. OPPO / VIVO* 2023. The "National Development and Reform Commission" is also pro-actively involved in bringing resolution of anti-trust issues like resolution with Qualcomm after investigation under AML and a fine of approximately USD 975 million.[56]

INDIAN JURISPRUDENCE ON SEPS AND FRAND LICENSING

India is the second largest country in relation to telecommunication network. Many patent litigations relating to SEPs on smartphone technologies including internet speed technologies, screen lock technologies, interoperability of mobile phones, etc. Thereby, it is pertinent to scrutinise whether India has appropriate legislation, regulatory regimes, and sufficient jurisprudence on determination of FRAND licensing.

49. Yan Jin & Chao Wang, *Chinese Court Rules for the First Time That It Has Jurisdiction over SEP Global Licensing Disputes*, 17 J. Intell. Prop. L. & Prac**.** 81 (2022), https://doi.org/10.1093/jiplp/jpab180.

50. Guanbin Xie, Shan Jiao & Qing Ying, *Development of Adjudicating Global FRAND Rate in China: A Review of OPPO v. Sharp*, Competition Pol'y Int'l (Mar. 2022), https://www.competitionpolicyinternational.com/wp-content/uploads/2022/03/8-Development-of-Adjudicating-Global-FRAND-Rate-in-China-A-review-of-OPPO-v-Sharp-Guanbin-XIE-Shan-JIAO-Qing-YING.pdf.

51. *Conversant Wireless Licensing S.à r.l. v. Huawei Techs. Co., Ltd.*, ZGFZMZ Nos. 732, 733 & 734(II) (Sup. People's Ct. Aug. 28, 2020) (China).

52. *Ericsson Inc. v. Samsung Elecs. Co.*, No. 2:20-cv-00380, 2021 U.S. Dist. LEXIS 29103 (E.D. Tex. Feb. 11, 2021).

53. *Xiaomi Corp. v. InterDigital, Inc.*, No. (Trans. Oct. 17, 2020), https://patentlyo.com/media/2020/10/Xiaomi-v.-InterDigital-decision-trans-10-17-2020.pdf.

54. Wang Jiaqi, *Leveling the Playing Field: Chinese Courts' Practice of Anti-Suit Injunction in Standard Essential Patent Area*, 13 Tsinghua China L. Rev. 381, 394 (2021), https://www.tsinghuachinalawreview.law.tsinghua.edu.cn/UploadFiles/2022-11-18/ffiztvhc3r4tziyi.pdf?NyBDTFVfQW50aS1zdWl0IEluanVuY3Rpb24ucGRm.

55. Nick Beckett & Lily Li, *Chinese Court Issues Landmark Judgment in OPPO v. Nokia Global FRAND Rate Case*, Lexology (Mar. 6, 2024), https://www.lexology.com/library/detail.aspx?g=44f058a6-aa4b-4e03-b566-439208df7286.

56. China's NDRC Concludes Qualcomm Investigation, Imposes Changes in Licensing Practices, https://www.clearygottlieb.com/-/media/organize-archive/cgsh/files/publication-pdfs/chinas-ndrc-concludes-qualcomm-investigation-imposes-changes-in-licensing-practices.pdf

Currently, India has no explicit laws governing or explaining the concept of SEPs and the liabilities relating to friend obligations of both patent holders of SEPs as well as implementers of such SEPs. The provisions of the "Patent Act, 1970" and the "Competition Act, 2002" are often relied upon in India for dealing with questions of SEP disputes and FRAND licensing in Indian courts.

Thus, the current FRAND licensing jurisprudence in India is primarily developed based on the judicial interpretations in cases pending before the Indian judiciary. Several cases, starting with the Microsoft v. Ericsson dispute and other patent litigation over SEPs between smartphone giants, has helped to shape SEP licensing jurisprudence in India. The CCI has also contributed towards such jurisprudence through its scrutiny of abuse of dominance by SEP holder as seen in the *Ericsson v. Micromax*[57] case.

The first patent litigation on SEPs in India was the *Philips case 2018*[58] before the Delhi High Court. Philips, the plaintiff, filed patent infringement cases against defendants who were importers and assemblers of DVD players in India. Phillips claimed that defendants had imported and assembled DVD player components which were manufactured using its patented technology in India without licenses. The Delhi High Court said that the defendant Bhagirathi electronics and others had failed to prove procurement through authorized licensees and failed to prove Philip's licensing terms were not FRAND compliant. Therefore, the court awarded royalty as proposed by plaintiff.

One of the crucial issues of the case was on the '*essentiality*' of Phillip's patent. Explaining the concept, the Delhi High Court said that a patent is "essential" if it is not possible to manufacturer lease or license the technology compliant with the standard without using the patented invention. The court observed that Philips has fulfilled by procuring essential certificates as granted to it corresponding to us and European patents. The court did not indulge in independent analysis.

An interesting case concerning interim injunction in SEP litigation before the Indian judiciary is the *Philips v Vivo* case (2020).[59] Phillips alleged that Vivo had violated its 3G 4 G LTE SEPs. Vivo in turn, challenged the essentiality of the patents and questioned the rates offered by Philip's were not FRAND-compliant. The Delhi High Court denied Philip's request for an interim injunction since the implementer (Vivo) had offered land as security. The court attempted to balance the interest of the SEP holder and the implementer whereby the injunction at the preliminary stage would have impeded the implementer's access to the market, but the provision of land as security safeguarded Philips' interests. This case highlights the judiciary's recognition of inalienable element of public interest in allowing access to SEPs yet giving SEP owners relief in some form to balance interests[60]. Though laws relating to SEP licensing is at infancy stage in India and there is no uniformity in such licensing yet the Delhi High Court's approach focussing on a duty to balance the rights of both SEP holders and standard implementers showcases a midway approach being adopted by Indian judiciary.

An indigenous four step test was formulated by the Delhi High Court in *Nokia v. Oppo*[61] case for assessing requests for interim injunction as relief in a SEP litigation. The court stated the following factors are to be examined:

57. *Telefonaktiebolaget LM Ericsson v. Competition Comm'n of India*, W.P.(C) 464/2014 & CM Nos. 911/2014 & 915/2014 (Del. High Ct. Mar. 24, 2016) (India).

58. *Koninklijke Philips Elecs. N.V. v. Rajesh Bansal*, CS (COMM) 24/2016 (Del. High Ct. July 12, 2018) (India); *Koninklijke Philips Elecs. N.V. v. Bhagirathi Elecs. & Ors.*, CS (COMM) 436/2017 (Del. High Ct. July 12, 2018) (India).

59. *Koninklijke Philips N.V. v. Vivo Mobile Commc'n Co. Ltd. & Ors.*, CS (COMM) 383/2020 (Del. High Ct. Nov. 2, 2020) (India).

60. Enrico Bonadio & Mahak Kansara, *Recent Indian Case Law on Standard Essential Patents*, Kluwer Pat. Blog (Oct. 23, 2023), https://patentblog.kluweriplaw.com/2023/10/23/recent-indian-case-law-on-standard-essential-patents-2/.

61. *Nokia Techs. Oy v. Guangdong Oppo Mobile Telecomms. Corp. Ltd. & Ors.*, 2022/DHC/004935 (Del. High Ct. Aug. 3, 2022) (India).

1. Whether the technology in question is essential standard?
2. Whether the technology is being used by the implementer?
3. Does the use of the technology amount to infringement of the SEP?
4. Whether the license offered by the patent holder was FRAND compliant?[62]

This case was primarily relating to three steps hold by Nokia force streamlining cellular devices compliant to 2G 3G 4G and 5G technology. Nokia alleged that it had a former contract with oppo which has expired in 2021 and post expiry both parties have failed to agree to new licensing terms. Since Oppo continued to use Nokia's patent while challenging the same in multiple jurisdictions on ground of essentiality, Nokia filed a case before Delhi High Court and seek interim injunction[63]. The 4-step test discussed above was referred by the Delhi High Court and since Nokia could not pass the test injunction was denied.

On appeal however Delhi High Court gave order to deposit *Pro Tem* buy oppo so that interests of the SEP holder are safeguarded. The court said the *Pro Tem* relief was because courts in other jurisdictions have found that oppo has infringed on Nokia's steps and oppo continues to use Nokia's SP during the phase of litigation. It is interesting here to note that the European Court of Justice in *Huawei v. ZTE*[64] had observed "*a pro tem security is an implementer's obligation in the negotiation phase, even when the implementer is a former licensee*." The Delhi High Court referring to this judgement noted that up *Pro Tem* relief ensures implementers access to the technology while balancing any undue advantage overuse of SEP holders' technology without payment of royalty. The court determined the *Pro Tem* deposit to be paid by 2 Nokia will be equivalent to the lost amount paid under the 2018 agreement between Nokia and OPPO.

However, the Delhi High Court found the 4-step test to be erroneous in the *Intex v. Ericsson*[65] case in 2023. In this case, when Ericsson sued Intex for infringement of its SEPs, Intex contended SEP not valid and essential and that delicious storms offered by Ericsson when not FRAND compliant. Since Ericson was able to satisfy the court that its patents were prima facie valid the preliminary injunction in favour of Ericsson was allowed with the payment of royalties in full. This was determined irrespective of the pendency of suits for deciding the validity and essentiality of the SEP patent.

One of the most controversial decisions by the Delhi High Court India's FRAND jurisprudence is the *Interdigital technology corporation v. Xiaomi case*[66] of 2021. Interdigital technology, the United States based technology company sought as remedy i.e. either a permanent injunction or royalties against Xiaomi for infringement of its 3G and 4G patents. The issue in this case was on the front licensing terms offered by interdigital and what should be the rate of royalty as Xiaomi contended that the rate of royalty offered were exorbitant and it had a right to access the rates offered by interdigital to other companies. Xiaomi filed case in 2020 before the Wuhan Intermediate People's Court for determination of royalty. InterDigital filed case in Delhi High Court containing that SEP implementers access to third party confidential licensing terms would be a breach of contracts for the SEP holder i.e. Interdigital. While Wuhan Court granted an anti-suit injunction, Delhi High Court granted AASI in 2021 so that Xiaomi cannot implement the injunction obtained from Wuhan

62. *Id.,* para 14.
63. *Nokia v. Oppo and CCI Jurisdiction Decisions Set New Benchmarks for SEP Jurisprudence*, IAM (Jun. 15, 2022), https://www.iammedia.com/article/nokiavoppoandcci jurisdictiondecisionssetnewbenchmarkssepjurisprudence.
64. *Huawei Techs. Co. Ltd. v. ZTE Corp.*, Case C-170/13, ECLI:EU:C:2015:477, ¶¶ 60–66 (CJEU July 16, 2015).
65. *Telefonaktiebolaget LM Ericsson v. Intex Techs. (India) Ltd.*, FAO(OS) (COMM) 296/2018 (Del. High Ct. Dec. 21, 2018) (India).
66. *InterDigital Tech. Corp. v. Xiaomi Corp.*, (2021) 277 DLT 396 (Del. High Ct.) (India).

Court against interdigital.[67] But it is also a viable argument that access to 3rd party contracts if given in a highly competitive market it would lead to unfair advantage which is irreversible. Also, for the purpose of FRAND licensing terms it is not pertinent that identical terms are to be offered to each implementer of the SEP.

Due to rising number of cases where domestic courts have ruled that they can set global FRAND rates some jurisdictions like China, India have started issuing AASIs. India's grant of the AASI has been perceived as the court favouring the rights of the SEP owner more than implementers access to the technology at a reasonable royalty rate which safeguard the interest of the end consumers also.[68]

EFFORTS IN INTERNATIONAL HARMONIZATION OF SEP DISPUTES

World Trade Organization (*hereafter referred as* WTO), Dispute Settlement Mechanism and SEP disputes

The WTO is a global platform for trade harmonization. Under its multilateral system, the "Agreement on Trade Related Aspects of Intellectual Property" (*hereafter referred as* TRIPs) while laying down the minimum standards for protection of intellectual property does not explicitly discuss SEPs in the part dealing with patent law. TRIPs under Article 1 puts obligations on members to "*give effect to the provisions of this Agreement*" but also clarifies that members may implement additional levels of protection domestically as long as such protection does not contravene the Agreement.[69] If there is dispute between two Member countries of WTO regarding the domestic law, or any judicial decision or any administrative ruling relating to intellectual property rights, TRIPs mandates Members to provide information in writing clarifying such law, decision or ruling to the other Member on request and is recognized as the transparency principle under TRIPs.[70] After attempts at consultation, a dispute panel can be constituted to look into such issues.

In 2022 December, European Union approached the dispute panel of WTO regarding Chinese court issued ASIs whereby China restricted SEP owners from enforcement of their patents in courts of WTO member countries where such 3G, 4G, 5G technologies mobile technologies are registered. Europe requested for establishment of WTO dispute panel claiming its attempts at bilateral negotiations with China has failed and Chinese trade measures are inconsistent with TRIPs obligations under "Articles 1.1, 28.1, 28.2, 41.1, and 44.1" of the Agreement.[71] European Union challenged the 5 ASIs granted by Chinese courts as well as an unwritten ASI policy and claimed China has violated the transparency principle under TRIPs obligations[72].

The Panel in 2025 found that European Union could not establish inconsistency in China's implementation of TRIPs obligations and found that only China's failure to publish the decision regarding ASI in Xiaomi v. InterDigital amounted to failure under Article 63 of TRIPs transparency principle[73]. China has already informed in August 2025 of its intention to implement the award to WTO's dispute settlement body[74].

67. Rajiv Choudhry, *Delhi High Court Issues AntiAntiSuit Injunction in InterDigital v. Xiaomi Patent Infringement Dispute*, SpicyIP (Oct. 10, 2020), https://spicyip.com/2020/10/delhi-high-court-issues-anti-anti-suit-injunction-in-interdigital-v-xiaomi.html.
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69. TRIPs Agreement, 1994, Art. 1, cl. 1.
70. TRIPs Agreement, 1994, Art. 63, cl. 3.
71. China - Enforcement of Intellectual property rights - Communication from China and the European Union WT/DS611/15.
72. *Id.*
73. *Id.*
74. *Id.*

It is interesting to note that major information and communications technology giants like United States, Japan, United Kingdom, Taiwan, India and many more countries did join this consultation reserving their third-party rights. The China- EU dispute also highlights questions of jurisdictional sovereignty whereby Chinese courts issuance of ASI has seen justified as a tool for attracting SEP disputes to China in similar fashion as courts in United Kingdom and United States have issued similar ASIs against Chinese companies.

World Intellectual Property Organization (*hereafter referred as* WIPO) on SEP disputes

The WIPO through its "*WIPO Arbitration and Mediation Center*" is facilitating licensing negotiations on FRAND terms of SEPs. The options available through this center are:

1. Mediation whether jointly or unilaterally requested for SEP disputes
2. Arbitration or expedited arbitration for such disputes
3. Expert determination of a specific matter in SEP disputes and
4. A multi-tier model where mediation is followed by arbitration.[75]

The Center also provides for model submission agreements for such mediation, arbitration or expert determination. The benefit of such dispute resolution through WIPO center is that it is globally settled, parties can determine scope of issues to be determined and the resolution happens through specialized personnel.[76] Thus, SEP holders and SEP implementers can use the facilities through WIPO Center for alternate dispute resolution.

CONCLUSION

While convergence in SEP regulation may be ideal for global technology markets but based on cases discussed previously, it can be observed that national courts in Asian countries like Japan, China and India continue to approach reflecting domestic priorities. Japanese approach to SEP licensing is focused on consensus-oriented regulatory culture, which is rooted in participatory model of voluntary negotiation and administrative clarity through policy guidance. While Chinese approach is bolder and more assertive and reflects China's ambition to be a global standard-setter in emerging technologies.

The trajectory of SEP litigation in India reflects a maturing legal and regulatory landscape that is gradually grappling with the complexities of standard-essential patent enforcement and fair licensing. From early disputes initiated by global firms like Ericsson to comprehensive judicial scrutiny in recent years, Indian courts and the Competition Commission have increasingly engaged with the nuances of FRAND obligations. The Delhi High Court's recent and detailed judgments signal a growing judicial willingness to probe licensing practices and assert authority over global SEP conflicts. As India continues to balance patent enforcement with innovation and public interest, comparative insights from other Asian countries like Japan and China offer valuable lessons for Indian legislators and regulatory authorities. India's evolving jurisprudence on SEP and FRAND issues will play a critical role in shaping a more transparent, equitable, and innovation-friendly patent ecosystem in the region.

List of abbreviations used:

1. Standard Setting Organization (*SSO*)
2. Standard Essential Patent (SEP)
3. Fair, Reasonable and Non-discriminatory (FRAND)
4. Competition Commission of India (CCI)
5. Anti-suit injunctions (ASI*)*

75. *WIPO ADR for FRAND Dispute,* WIPO (Jun. 2, 2025, 5.39 PM) https://www.wipo.int/amc/en/center/specific-sectors/ict/frand/.
76. *WIPO ADIR for SEP/FRAND Disputes*, WIPO (Jun. 2, 2025, 5.39 PM) https://www.wipo.int/export/sites/www/amc/en/docs/wipo-adr-frand.pdf.

6. Ministry of Economy, Trade, and Industry (METI)
7. Japan Patent Office (JPO).
8. Anti-anti-suit injunctions (AASIs)
9. Anti-Monopoly Law (AML)
10. State Administration for Market Regulation (SAMR)
11. World Trade Organization (WTO)
12. Agreement on Trade Related Aspects of Intellectual Property (TRIPs)

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