Journal of Commercial Law Review
2025, VOL. 9, NO. 3, 77-82
DOI: 10.47297/wspjclrWSP2516-249715.20250903

Research on Antitrust Regulation of Standard Essential Patent Abuse: A Case Study of Huawei v. IDC

Chunyao Chen

East China Jiaotong University, NanChang, JiangXi, 330000, China

ABSTRACT
As an important component of technical standards, the abuse of standard essential patents (SEPs) may significantly distort market competition and infringe upon the interests of a wide range of consumers. This article addresses the typical case of SEP abuse, namely the abuse of SEPs in the Huawei vs. IDC case—such as implementing unfair high-priced licensing and discriminatory licensing conditions—and raises specific issues regarding antitrust law's regulation of SEP licensing: The "Guidelines on Antitrust Regulation of Standard Essential Patents" face various complex and special challenges in practice. First, SEP abuse renders the FRAND principle (Fair, Reasonable, and Non-Discriminatory) a mere formality. Second, SEP abuse generates anti-competitive effects such as patent hijacking and patent forests. Third, when regulating SEP abuse under China's "Antimonopoly Law," it is essential to consider standard-related factors, provide detailed guidance on specific cases in the "Guidelines on Antitrust Regulation of Standard Essential Patents," standardize the formulation of patent licensing rate standards, and strengthen market supervision. The Huawei vs. IDC case is a concrete instance handled by China in the practical field of antitrust regulation of standard essential patents. The adjudication approach is conducive to guiding the establishment and improvement of China's antitrust regulatory system for standard essential patents, achieving a balance between encouraging innovation and safeguarding competition, and promoting the development of the technical standards industry.

KEYWORDS
Standard essential patents; Patent rights; Antitrust regulation; Abuse of dominant market position

1 Case review

The Guangdong Provincial High People's Court made a final judgment on October 29, 2013, in the case of Huawei v. IDC, ruling that numerous actions by the U.S. company IDC constituted a monopoly and ordered it to compensate Huawei with 20 million yuan. With the rapid development of information technology, disputes among global communication giants such as Apple, Samsung, and Nokia over issues like standard-essential patent infringement have continued to arise. The Huawei v. IDC case attracted significant attention from countries worldwide, especially from the telecommunications industry, from the very beginning of its filing. Moreover, disputes over standard-essential patent licensing were also a first in China.

Huawei filed a lawsuit alleging that IDC improperly exploited its participation in various international standard-setting processes to include all its patents in the standards, thereby forming standard-essential patents and occupying a dominant market position. In addition, IDC refused to transact with Huawei by initiating a "Section 337 investigation" and filing lawsuits in U.S. federal courts. These actions severely hindered the normal operation of the market, leading Huawei to request the court to determine that IDC abused its dominant market position in both China and the United States.

In a first-instance ruling, Shenzhen Intermediate People's Court ordered IDC Company to compensate Huawei for RMB 20 million in damages due to monopolistic practices. However, the court dismissed IDC's claim regarding its alleged bundling of essential patent packages during the trial. Both parties appealed the verdict. Guangdong High People's Court ultimately upheld the original judgment, though it rejected Huawei's assertion that IDC's bundled licensing constituted unfair competition. The court noted that IDC's four licensing bids for Huawei were significantly higher than those for other companies, while Huawei's global smartphone sales were far below those of Apple and Samsung. The excessive licensing fees were deemed unjustified and unreasonable. The court concluded that IDC engaged in unfair high-price sales practices, constituting a violation of antitrust laws.

2 Definition of abuse of standard essential patents

2.1 Concept and attributes of standard essential patents

A Standard Essential Patent (SEP) refers to patents covering technologies deemed indispensable for the adoption of international or national (industry) standards, which must be utilized when implementing such standards. SEPs exhibit two primary characteristics: First, they possess technical irreplaceability, typically being the sole solution for achieving

* **Corresponding Author:** Chunyao Chen, 924768175@qq.com

standard compliance. For instance, the absence of key patents for signal transmission and encoding/decoding in 4G or 5G communication standards could potentially halt standard development. Second, they maintain a direct correlation with standards. Patent claims demonstrate clear alignment, as seen in core patents for information transmission technologies like Wi-Fi and Bluetooth. Additionally, patent licensees must provide FRAND (Fair, Reasonable, and Non-Discriminatory) licenses to standardization bodies, ensuring standard adopters obtain patent rights at reasonable prices. This mechanism not only guarantees technical compatibility and interoperability across industries but also promotes continuous innovation through equitable benefit distribution.

2.2 Forms of abuse of standard essential patents

The forms of abuse of standard essential patents are mainly reflected in the following:

Unfairly high pricing; in the context of standard essential patent licensing, unfairly high pricing refers to the practice where a patent holder charges a licensee licensing fees exceeding the normal competitive level when granting a patent. In the Huawei vs. IDC case, IDC Company issued a final offer to Huawei in 2012, proposing to pay a licensing fee rate of 2% based on sales volume from 2009 to 2016. Huawei claimed that IDC Company adopted multiple criteria in patent licensing, with its licensing rates for Huawei being dozens of times higher than those for Apple and Samsung, which was extremely unfair to Huawei. For ordinary patents, although product prices are often influenced by market fluctuations, buyers enjoy a wide range of autonomous choices, and ordinary patents are often substitutable. Therefore, a company's practice of demanding high prices cannot be automatically deemed illegal. However, standard essential patents are somewhat irreplaceable compared to ordinary patents. If a patent holder charges a licensee high and obviously unfair licensing fees, it will make it difficult for the licensee to enter the relevant market, thereby disrupting the fair competition order of the market.

Refusal to grant licenses; This scenario primarily refers to standard essential patent holders maintaining market dominance while unlawfully refusing to license their patents to other businesses. It should be noted that while patent holders retain the right to decide whether to grant licenses for their patents, this does not grant them arbitrary refusal authority. When licensees unreasonably withhold patent licenses without valid justification, such practices may disrupt orderly market competition, hinder technological innovation, and ultimately undermine national development and public welfare. These very issues constitute the core regulatory objectives of antitrust laws.

Bundling; that is, when granting patents, the patentee may force the bundled sale of non-standard essential patents by claiming that their standard essential patents are irreplaceable. In the case of Huawei v. IDC, Huawei alleged that IDC ignored its commitment to the principles of fairness, reasonableness, and non-discrimination, set excessively high prices for its patent licenses, and imposed unreasonable conditions, which it claimed constituted bundling. However, the Shenzhen Intermediate People's Court rejected Huawei's claim in court that IDC's blanket licensing of essential patents constituted a bundled sale. This demonstrates that not all bundling practices are subject to antitrust regulation. Many legal scholars argue that bundling itself is a legitimate commercial practice and does not necessarily harm competition. On the contrary, it may even enhance sales efficiency in practice. On the basis of proper and reasonable application, patentees should provide evidence of the positive effects of their bundled practices and objectively state their potential negative impacts. Only after comparing the positive and negative effects can they determine whether the bundled practice is illegal.

2.3 Harm of abuse of standard essential patents

Because standard essential patents have both the monopoly of patents and the compulsoriness of standards, the abuse of standard essential patents causes more damage than ordinary patents. The harm is mainly reflected in the following aspects:

First, it hinders the application of technical standards and industrial development. The essential function of standard-essential patents is to promote the dissemination and adoption of technical standards through patent sharing. However, patent abuse inevitably increases the costs for enterprises in standardization processes. For SMEs, this often means being forced to abandon standards due to excessively high licensing fees, ultimately reducing the adoption rate of technical standards and impeding industrial progress. Moreover, when patent holders impose excessively high licensing fees after standards are established, creating "patent hijacking" (Patent Hold-up), this undermines the expected effectiveness of the FRAND principle. Such practices diminish patent holders' willingness to participate in standardization efforts and disrupt the collaborative innovation ecosystem within industries.

Second, it disrupts market competition order and heightens monopoly risks. A healthy competitive environment serves as a crucial mechanism for regulating market fluctuations and imbalances. The abuse of standard-essential patents (SEPs) may constitute "abuse of dominant market position" under antitrust laws. In an environment lacking competition, as patent holders' market dominance expands and monopolistic positions form, SEP holders may persistently impose high licensing fees to maximize profits, thereby negatively impacting normal market competition. For both buyers and sellers in transactions, maintaining a competitive environment that safeguards the legitimate rights and interests of all

parties is of paramount importance.

Third, the increased social costs infringe upon consumer interests. The ultimate price of abusive practices is passed on to end consumers, depriving them of affordable goods and services. Moreover, monopolistic licensing strategies enable certain enterprises to control critical nodes in industrial chains, squeezing the survival space of small and medium-sized enterprises, reducing market supply diversity, and restricting consumer choice. Therefore, regulating and supervising the abuse of standard-essential patents has become an urgent necessity in practice.

3 The basis for regulating the abuse of standard essential patents by anti-monopoly laws and regulations

The Anti-Monopoly Law and standard essential patents share a common goal in promoting orderly market development and maintaining healthy competition. The current Anti-Monopoly Law has incorporated the principle of "encouraging innovation" into its legislative objectives, building upon existing provisions. As innovation serves as a crucial driving force for patent development, this integration has significantly strengthened the connection between standard essential patents and the Anti-Monopoly Law.

3.1 The theoretical basis of regulating the abuse of standard essential patents by anti-monopoly laws

As the "capture effect" of technical standards, standard essential patents may grant right holders structural market dominance in relevant markets, such as the near-monopoly share of standard essential patent holders in the patent licensing market for 3G, 4G, and 5G communication standards. The antitrust law's regulatory logic regarding market dominance is highly directly applicable in such scenarios. Moreover, the FRAND principle, as the foundation of standard essential patents, aligns closely with antitrust law in ensuring competitive order and consumer interests. Standard essential patent holders who benefit from FRAND principles should also bear the obligation to license under FRAND terms. Violations of FRAND terms may constitute abuse of market dominance under antitrust law. For instance, in the Huawei vs. IDC case, the court ruled that IDC violated FRAND commitments by charging excessively high licensing fees, constituting "unfair high prices" under antitrust law. Additionally, the "China Guidelines on Antitrust for Standard Essential Patents" explicitly consider "violations of FRAND commitments" as a primary factor in determining monopolistic behavior, and the enforcement practices of the EU and the US also include FRAND breaches in antitrust reviews. Finally, since standard essential patents are technical standards, they may be regarded as essential facilities, making the antitrust regulation logic for essential facilities particularly valuable in this context. The application of the essential facilities principle extends beyond static market structures to address dynamic market innovation. If the standard necessary patentee refuses to license to the new market subject, it may lead to technological backwardness, and the anti-monopoly law can correct it by compulsory licensing.

3.2 The practical basis for regulating the abuse of standard essential patents by anti-monopoly laws and regulations

In relevant markets, standard-essential patent holders often hold strong market dominance due to the mandatory nature of technical standards and the uniqueness of patents. For instance, in the case of Huawei v. IDC, IDC held a complete share in every necessary patent licensing market for wireless communication technology standards. If the rights holders abuse this dominant position, such as through overpricing, discriminatory pricing, or tie-in sales, it would undermine a fair competitive market environment, place other enterprises at a disadvantage, and hinder the normal functioning of market competition mechanisms. Antitrust laws can regulate such abusive practices to ensure fair competition. At the legislative level, antitrust laws can effectively review and precisely regulate potential monopolistic behaviors; at the enforcement level, antitrust enforcement agencies authorized by national law bear the responsibility and obligation to enforce the law and perform their duties in accordance with the law.

Antitrust measures not only ensure orderly and stable market development but also drive innovation. By addressing unreasonable market practices such as the abuse of standard-essential patents (SEPs), they safeguard fair competition and foster technological advancement, ultimately maximizing social benefits. Furthermore, the release of the "2024 Guidelines on Antitrust for Standard-Essential Patents" provides law enforcement agencies with stronger legal support. The guidelines conduct detailed analyses of SEP-related antitrust practices, structuring their content into six chapters with 22 articles. They specifically outline methodologies for market definition, principles for analyzing monopolistic behaviors, information disclosure requirements, and licensing commitments, effectively preventing excessive risk behaviors in SEP licensing processes.

4 The dilemma of China's anti-monopoly regulation on the abuse of standard essential patents

4.1 Unclear information disclosure system

While patent licensing requires disclosing relevant supporting materials, current regulations lack clear provisions for these requirements. Standard essential patents involve complex technical details and scope of rights, making patent certificates insufficient as standalone proof. The absence of specific disclosure guidelines allows companies to exploit regulatory loopholes by providing vague or simplified disclosures. This incomplete disclosure of essential information constitutes patent infringement, complicating regulatory authorities' assessment of whether patents are genuinely necessary and whether they potentially constitute monopolistic conditions.

When implementers fail to disclose patent declarations, there are no penalties in place. In market practice, some companies conceal patent information, while patent holders file lawsuits after standard implementation to collect substantial licensing fees. The absence of punitive measures results in prohibitively low costs for violators, making such infringements difficult to curb and causing significant harm to standard implementers.

4.2 Insufficient market regulation

China's antitrust enforcement agencies have a relatively small proportion of officers with expertise in standard-essential patents. In some 5G communication standard-essential patent licensing cases, the lack of understanding by enforcement officers regarding core technologies such as 5G massive MIMO (Multiple Input Multiple Output) and carrier aggregation makes it difficult to assess patent necessity and determine reasonable licensing rates. This has delayed investigation progress and missed the optimal regulatory window.

Furthermore, the regulation of standard essential patent licensing involves multiple departments including market supervision and intellectual property. Currently, an effective interdepartmental coordination mechanism has yet to be established. While market regulators possess enterprise transaction data, intellectual property authorities hold patent application and authorization records, and science and technology departments maintain industry trend analyses and research project information, these resources remain siloed. The lack of seamless information flow between departments creates operational challenges. When investigating patent licensing market monopolies, cross-departmental collaboration becomes essential. However, ambiguous departmental responsibilities and absence of coordination mechanisms often lead to buck-passing and redundant enforcement efforts, ultimately compromising regulatory efficiency.

4.3 Unclear patent licensing negotiation system

Issues in patent licensing negotiations include improper delays, cost fraud, and technical information exclusivity. The current licensing negotiation framework often becomes a tool for patent holders to exploit procedural loopholes. Practically, there's a lack of clear definitions for reasonable negotiation cycles—such as maximum response periods for initial licensing offers, intervals between negotiation exchanges, and overall negotiation timelines. This absence allows licensees to exploit procedural gaps for strategic delays. Common tactics include citing "complex internal procedures" or "requiring technical solution revalidation" as excuses, with the most blatant example being deliberate discrepancies in pricing during offer stages. Implementers are then forced to prolong negotiations to protect their rights.

Consider a patent management company holding over twenty IoT standard patents. Its "R&D Cost Allocation Report" submitted to manufacturers during licensing negotiations revealed an average R&D expenditure of approximately 10 million yuan per patent. A specialized audit by an accounting firm exposed that the company had improperly allocated non-standard essential patent R&D costs—including investments in failed technical approaches and market research expenses—into the standard essential patent's billing base. This accounting manipulation inflated the actual royalty rates by over 100%, severely compromising the interests of standard implementers.

5 Suggestions for improving anti-monopoly regulation of abuse of standard essential patents in China

On November 4, 2024, the State Administration for Market Regulation issued the "Guidelines on Anti-monopoly of Standard Essential Patents" (hereinafter referred to as the <Guidelines>). Based on the main content of the document, the anti-monopoly regulation on the abuse of standard essential patents in China should be improved and supplemented from the following aspects.

5.1 Strengthen the information disclosure system

While the Guidelines have addressed issues of unreasonable information disclosure, many specific provisions still require clearer clarification. On one hand, disclosed content must be precise. For standard-essential patent holders, vague

descriptions should be avoided. They must explicitly disclose the technical details of patents—including core technical principles, key processes, scope of rights protection, and specific protection boundaries—to prevent disputes arising from ambiguous rights boundaries during licensing. On the other hand, the process of incorporating patent technologies into standards and their indispensable roles in standard development and implementation must be clearly explained. In establishing disclosure standards, patent holders should begin organizing patent information during the initial drafting phase and promptly submit interim disclosure reports to standard developers and participants. Timely updates should be made at critical stages such as draft submission, feedback collection, and revisions to ensure timely disclosure. When new patents are granted or existing patents undergo changes (e.g., invalidation or modifications), supplementary disclosures must be completed within reasonable timeframes. Documentation requirements mandate submission of original and certified copies of patent certificates and examination documents to verify validity and stability. Additionally, technical comparison reports between patents and standards must be provided or commissioned from qualified third-party entities.

In addition, given the current insufficient penalties for violations and the weak awareness of information disclosure among some SEP right holders, who delay disclosure, disclose one-sided information, or even intentionally conceal technical details, stricter legal punitive measures should be established to further regulate the behavior of SEP right holders. For the first instance of untimely and unreasonable disclosure by a monopolistic entity, the antitrust enforcement department shall issue a public warning and publish the relevant information on the official website of the antitrust department or related industry media. A fine of a corresponding amount shall be imposed based on criteria such as the scale of the right holder's operations, the number of patents within the scope of monopoly, and the adverse impact on the industry market. For the second violation with serious circumstances and particularly significant impact, the enterprise shall face doubled fines and restrictions on participating in the formulation of industry standards for one year due to failure to voluntarily rectify and disclose information. At the same time, the relevant information shall be included in the China National Enterprise Credit Information Publicity System, which shall be combined with the credit scoring system corresponding to financial institutions and commercial cooperation in China. During the process of enterprise loan commercial cooperation, efforts shall be made to increase the severity of penalties for enterprises with repeated violations.

5.2 Strengthen market supervision

Given the inherent complexity of standard essential patents (SEPs), which objectively increases enforcement challenges for regulatory authorities, antitrust enforcement agencies should implement targeted and systematic training programs. These initiatives should include regular professional development for enforcement personnel, extending beyond mere recitation of legal documents like the "Guidelines", "Anti-Monopoly Law", and "Patent Law". The programs should feature case studies and legal interpretation sessions led by legal experts, complemented by specialized workshops covering key technology areas such as wireless communications, audiovisual systems, and IoT. Senior technical experts in these fields should deliver specialized lectures, equipping enforcement officers with comprehensive knowledge of SEP technologies across different domains, including their technical characteristics, application scopes, and emerging trends.

Meanwhile, it is essential to establish a comprehensive professional evaluation system for law enforcement personnel. This system should conduct regular assessments of officers' legal knowledge and technical expertise, with evaluation results directly linked to their performance evaluations. Additionally, law enforcement agencies could form expert advisory panels comprising professors specializing in intellectual property law and technical experts from universities and research institutions. When handling complex standard-essential patent antitrust cases, these panels can provide authoritative technical and legal guidance, ensuring fairer and more scientifically grounded enforcement practices.

Notably, while the Guidelines emphasize pre-and mid-process supervision, post-approval oversight remains equally crucial. For standard essential patent antitrust cases that have been resolved, antitrust enforcement agencies should maintain dedicated review files documenting case outcomes and corrective requirements. Within a specified post-resolution period, these agencies must conduct follow-up audits to verify compliance with mandated rectifications, including reductions in unreasonable licensing fees and adherence to non-discriminatory licensing practices.

5.3 Further optimize licensing negotiation rules

While the Guidelines outline procedures and requirements for good-faith negotiations, they do not fully specify detailed implementation processes or timelines. The standard negotiation protocol should commence with an offer from the standard essential patent holder. The offer must include: a detailed list of standard essential patents specifying each patent's name, number, and technical aspects; a table demonstrating reasonable licensing quantities and clear alignment between patents and standards; a methodology for determining licensing rates based on factors such as the patent's technical contribution, usage frequency, industry benchmarks, and market conditions, supported by detailed calculations; and a reasonable response period (typically 7 working weeks). Upon receiving the offer, the standard implementer must

respond within the agreed timeframe. If willing to negotiate, the implementer may briefly outline their business operations, production scale, and intended product/service applications to help the patent holder understand specific needs. Both parties then enter substantive discussions covering key terms like licensing rates, duration, scope of use, and technical support. Notably, each discussion requires written responses from both sides within 7 working days, clearly stating acceptance, rejection, or modification of proposals. Secondly, in the negotiation for the purpose of licensing fees, in order to prevent the efficiency from being reduced due to the long negotiation, the whole licensing negotiation should also be limited in time. For example, the whole licensing negotiation should be completed within 6 months, otherwise, the negotiation can be postponed with the written consent of both parties and the explanation to the anti-monopoly law enforcement department.

6 Conclusion

In summary, the case of Huawei vs. IDC, as a patent litigation between the two parties, is not only a typical example of antitrust regulations regulating the abuse of standard essential patents, but also leverages the sword of judicial practice to address the imbalance of interests in the field of standard essential patents involving license abuse, thereby reversing the dynamic equilibrium between intellectual property protection and market competition.

The judgment in this case, from individual cases to institutional frameworks, serves as a guiding principle. By defining market dominance, reviewing whether IDC adhered to the FRAND principle, and applying the theory of essential facilities, the court transformed abstract antitrust standards into adjudicative criteria, filling the judicial gap in the field of standard essential patents. This demonstrates China's antitrust law's zero-tolerance stance toward patent hijacking and other abuses of licensing, emphasizing that right holders should fulfill their obligations while enjoying standard dividends. This approach will guide the adjudication of similar cases in related fields in the future. From an industrial perspective, antitrust regulations have created an ecosystem where the abuse of standard essential patents hinders innovation. If IDC's abusive licensing practices go unpunished, it is inevitable that Huawei and others will face unjustified "high costs." The telecommunications industry may also delay its technological transformation due to patent barriers. By rejecting abuse, the court upholds fair competition among small enterprises in the industrial chain and provides legal safeguards for next-generation technologies like 5G.

In the future, as the internationalization and complexity of technical standards intensify the competition between the abuse of standard-essential patents and antitrust regulations, drawing lessons from the Huawei vs. IDC case, we must further establish and improve the antitrust rule system in the field of standard-essential patents. By better guiding the application of the "Antitrust Guidelines for Standard-Essential Patents" in judicial practice, strengthening international law enforcement cooperation, and balancing the relationship between intellectual property protection and competition policy, we can not only leverage the incentive function for innovation but also achieve the "win-win" of open and inclusive technical standards, healthy industrial development, and improved social welfare.

About the Author

Chunyao Chen, Female, Master's Degree, Research direction: economic jurisprudence.

References

[1] Ran Longyu, Wu Taixuan. "The Regulatory Dilemma and Countermeasures of Antitrust Regulation on the Abuse of Standard Essential Patents," Electronic Intellectual Property, 2021(10):58-60.

[2] Zheng Yu. Research on Antitrust Regulation of Standard Essential Patent Abuse [J]. Henan University of Economics and Law. 2024(05):10-11.

[3] Xue Haoyu. Research on Anti-Monopoly Regulation of Standard Essential Patent Abuse [J]. Xinyang Normal University, 2024(05):09-10.

[4] Ji Zhengtan. "Antitrust Regulation and Reflections on the Abuse of Standard Essential Patent Injunctions in China", International Journal of Economic Law, 2025(01):144-156.

[5] Ma Le, Huang Xiang. "Research on Judicial Rules for Restricting Injunction Relief of Standard Essential Patents," Science and Law, 2020(02): 06-23.

[6] Wei De. "Reflections on the Regulation of Standard Essential Patent Abuse through Antitrust Laws," Beifang Law Review, 2020(03):150–152.