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# Licensing and Litigation of 5G Standard-Essential Patents

Contributed by [Steven Pepe](#), [Kevin Post](#), and [Shong Yin](#), *Ropes & Gray*

5G wireless technology continues to be deployed rapidly, with some of the newest smartphones now supporting 5G and Verizon continuing to build out its nationwide 5G network. Indeed, in the years since 3G and 4G were launched, cellular wireless technology—including its prominence in different industries, interrelation with other technical standards, and its patenting in the U.S. and abroad—has evolved significantly.

This third installment of the authors' three-article series reviews how these changes may inform licensing and litigation strategies for patent owners and implementers of 5G technology—with a particular emphasis on injunctive relief and how the availability of that relief may play a key role in international 5G standard-essential patent (SEP) disputes.

## Impact on FRAND Commitments and Portfolio Licensing

Patenting activity for 5G to date has already exceeded that for 4G. Significantly, more total active patent families, consisting of pending applications and granted patents, have been declared essential to 5G than to 4G, suggesting a broader diversity of technical coverage in 5G.

But importantly, beyond the sheer volume of patent filings and granted patents, the 5G standard—e.g., TR 21.915—describes multiple applications that overlap with and implicate other technical standards. This overlap will undoubtedly complicate licensing activity because it may require licenses beyond 5G SEP portfolios that will make the decision of how and when to implement 5G functionality more difficult. For example, the 5G addition of HDR to TV video profiles functionality requires H.265 video coding functionality and may require licensing of H.265 video coding SEP portfolios, which have been beset with licensing difficulties over the years.

The broad reach of 5G may even implicate patents that are not subject to fair, reasonable, and non-discriminatory (FRAND) obligations at all. For example, implementing 5G vehicle-to-everything communications (V2X) features may require licenses to patents on automotive controls that are not covered by technical standards bound by a FRAND commitment.

As noted in the first [article](#) of this series, the broad applications of 5G may also result in disputes between industries accustomed to different licensing practices, similar to those during the 3G/4G smartphone wars. Automotive manufacturers, for example, are accustomed to IP licensing costs being borne by upstream manufacturers, whereas licensors from the telecommunications industry typically set royalty rates based on end-product prices. Given the large expected volume of 5G licensing activity, companies that sell end-user products and components within the 5G supply chain should consider appropriate indemnification obligations within their supply agreements. All these factors suggest that 5G licensing will be challenging, particularly in the early years, and may be the largest diversion yet from typical telecommunications licensing.

## More Complaints Ahead

A recent shift in U.S. SEP enforcement policy to favor injunctive relief for SEPs may result in larger volumes of SEP complaints at the ITC and higher SEP portfolio rates. Federal court litigation over 3G and 4G/LTE cellular technology steadily increased at a brisk pace during the 3G/4G smartphone wars starting in 2009 before falling off in recent years. SEPs were a particularly attractive litigation instrument because each smartphone needed to use cellular SEPs and patent owners could demonstrate infringement based on compliance with technical standards.

In 2013, around the peak of the smartphone wars, the Department of Justice and the U.S. Patent and Trademark Office (USPTO) issued a policy statement that discouraged injunctions for SEPs. In view of this and *eBay v. Merc Exchange, L.L.C.*—which made obtaining an injunction in district courts more challenging—plaintiffs turned increasingly to the U.S. International Trade Commission (ITC), which awards injunctive relief in the form of exclusion orders as its primary remedy.

Unlike district courts, the ITC does not consider the *eBay* factors when determining whether to award injunctive relief, considering instead four public interest factors: public health and welfare, competitive conditions within the U.S. economy, production of competitive articles in the U.S., and U.S. consumers. Although the U.S. Trade Representative (USTR) relied upon public interest considerations to veto a 2013 exclusion order in 337-TA-794 that would have banned certain Apple products from the U.S., the ITC has typically not denied exclusion orders based on these factors.

A recent U.S. policy shift towards allowing injunctive relief for SEPs may lead to increased interest in the ITC and result in a spike in early 5G litigation in the U.S. as patent holders try to use injunctive relief to establish higher value for their patent portfolios.

Ultimately, the role of the ITC in 5G litigation will depend on how patent owners try to use it to their advantage. But no matter how willing the ITC is to consider SEP issues, licensors planning to file suit there will still need to establish domestic industry, for example through sales or licensing activity, which has been a challenge for some non-practicing entities (NPEs) to establish.

Implementers, on the other hand, should keep current on the ITC's treatment of SEP issues, particularly around public interest, and may even need to consider manufacturing products in part within the US to avoid ITC jurisdiction entirely. Preemptive declaratory judgment suits to forestall a complaint in the ITC may also be a strategy that some implementers consider.

## Effect of 2013 Policy Statement

In 2013, the Department of Justice and the USPTO jointly issued a [policy statement](#) that disfavored injunctive relief for SEPs as it “may be inconsistent with the public interest.” The statement did not foreclose injunctive relief, suggesting some openness in narrow circumstances “where the putative licensee is unable or refuses to take a F/RAND license.”

The DOJ and USPTO expanded these positions in a 2015 [letter](#), noting that a proposed IEEE patent policy's express limitation on exclusionary relief for IEEE FRAND encumbered patents absent bad faith negotiations by an implementer “would not be significantly more restrictive than current U.S. case law” and “may help parties reach agreement more quickly.” The letter also stated that a focus on smallest saleable units as the basis of damages “may be likely to lead to the appropriate valuation of technologies subject to the IEEE RAND Commitment.”

As a practical matter, the ITC, subsequent to the 2013 Policy Statement and USTR veto in 337-TA-794 mentioned above, has largely sidestepped the thorny issue of injunctive relief for SEPs by declining to opine on the essentiality of asserted patents. For example, in *Amkor Technology Inc. v. Carsem Semiconductor*, the Commission issued a limited exclusion order based on a patent that was allegedly essential to a JEDEC memory standard.

But the Commission relied in part on the respondent's non-infringement defenses to determine that the respondent had not shown that the patent was essential. ALJs made similar findings in *Interdigital v. Nokia* (May 8, 2015), *Cisco v. Arista* (June 1, 2017), and *Fujifilm v. Sony* (April 2, 2018).

Then, in October 2019, the ALJ in *Netlist Inc. v. Sk Hynix* issued an exclusion order based on a finding that an asserted patent was standards essential. The ALJ further determined that the complainant was not subject to any FRAND obligations because the JEDEC patent policy was unenforceable. Nevertheless, the Commission in April 2020 reversed the ALJ's determinations of infringement and essentiality of the asserted patent, and unenforceability of the JEDEC patent policy. In doing so, consistent with prior decisions the Commission avoided the issue of awarding injunctive relief where a patent was determined to be standards essential.

## Effect of the 2019 Policy Statement

On Dec. 19, 2019, the DOJ, the USPTO, and the National Institute of Standards and Technology withdrew the 2013 statement and issued a new one, [stating](#) that SEP holders should be entitled to injunctive relief under the same criteria as non-SEP holders. The 2019 statement noted that barring “injunctions and other exclusionary remedies” for SEPs “would be detrimental to a carefully balanced patent system, ultimately resulting in harm to innovation and dynamic competition.”

Unlike the 2013 statement, the 2019 one stated that injunctive relief for SEPs can help promote innovation and competition by patentees rather than harm it, effectively shifting the recognized harms from implementers to licensors.

The DOJ also issued a [letter](#) on Sept. 10, 2020 to “align the outdated analysis in the 2015 Letter with current U.S. law and policy.” The 2020 letter made clear that the DOJ no longer supported the IEEE policy against injunctive relief for SEPs and noted that a key problem to innovation was “hold-out” by implementers, not “hold-up” by patentees as previously and “incorrectly” stated by the 2015 letter. The 2020 letter also repudiated the 2015 letter's support for using the smallest saleable patent practicing unit as the royalty base and instead noted that “end-product based calculations” may be viable options.

The 2019 Policy Statement and 2020 Letter now provide clearer directives to the ITC and district courts to award injunctive relief for SEPs and higher royalties based on end user products. It is expected that these will increase 5G litigation, especially at the ITC. With that said, the practical effects of these new policies may still take time to emerge. As noted above, even after the 2019 Policy Statement issued, the Commission in April 2020 still reversed an exclusion order awarded based on an adjudicated SEP in the *Netlist Inc. v. Sk Hynix* dispute.

## Global Landscape for 5G Licensing and Litigation

As 5G technology has developed, patenting activity has remained global. But as different companies jockey for patent rights, with new leaders emerging, the treatment of SEP issues in various national courts around the world also has also evolved. Over the last decade, SEP litigation has played out concurrently in multiple global forums with varying characteristics, as summarized in the chart below. Depending on the status of licensing negotiations, either the licensor or prospective licensee may benefit from first initiating litigation in a favorable forum that may be preserved through anti-suit injunctions.

Forum	Time to Adjudication	SEP Injunctive Relief	Global Scope of Licensing Authority	Anti-Suit Injunctions
U.S. Federal District Courts	Variable, but typically between 20-40 months	Possible	TBD	Possible
USITC	~20 months	Y	N/A	N/A
German Courts	~13-15 months	Y	Y	Possible, except against member EU states
U.K. Courts	~15-18 months	N/A	Y	TBD
Chinese Courts	~12 months	Y	TBD	TBD

The U.S. remains an attractive option for SEP litigation given the importance of the U.S. market to many industries. The time to adjudication in the U.S. can vary from fast—e.g., the Eastern District of Texas—to moderate—e.g., the Northern District of California, but is almost always slower than the ITC and many foreign trial courts.

Some district courts have adjudicated global licensing disputes, as in the *Microsoft v. Motorola* dispute where Judge James Robart issued an anti-suit injunction barring Motorola from maintaining a later filed parallel German court action on the grounds that he would judicially determine a RAND license that would encompass the disputed German patents. But other district courts, like the Eastern District of Texas in *Optis Wireless v. Apple*, have declined to decide FRAND obligations with respect to foreign SEPs. Although *eBay v. Merc Exchange L.L.C.* makes obtaining injunctive relief in district courts challenging, licensors have sought injunctions for SEPs in parallel investigations in the ITC.

German courts have been an attractive forum for SEP litigation due to their fast time to resolution, the ready availability of injunctions for SEPs, and an established framework for FRAND licensing negotiations that reduces delay in negotiations. For example, the 2015 *Huawei v. ZTE* decision by the EU Court of Justice (ECJ) required that a prospective licensee promptly provide a counter-offer if it rejects the prospective licensor's initial FRAND offer.

Indeed, in 2019, the German High Court confirmed this negotiation framework and noted that SEP owners can demand a worldwide portfolio license without violating their FRAND obligations. And German courts have issued anti-suit injunctions against later filed parallel litigation in overseas forums, as in the *Nokia v. Daimler* dispute in 2019.

On this point, it is worth noting that the authority of German courts, or EU national courts more generally, to issue anti-suit injunctions may be limited to suits filed outside of the EU. In a decision in *Nori Holdings v. Public Joint Stock Company*, the ECJ denied an anti-suit injunction as incompatible with the Brussels Regulations that call for reciprocal respect between courts of EU member states.

Recently, U.K. courts have also become an attractive forum for SEP litigation, particularly in light of the U.K. Supreme Court's 2020 decision in *Unwired Planet v. Huawei* that confirmed the right of SEP holders to demand global licenses. In that case, a U.K. court determined that it could award an injunction based on a U.K. patent if a defendant refuses a global license. In terms of a licensor's ability to focus the dispute in the U.K., the availability and scope of anti-suit injunctions in the U.K. remains to be determined, pending the U.K.'s exit from the EU. If the U.K. is no longer subject to the Brussels Regulations, its courts may issue anti-suit injunctions against proceedings in EU member states.

For example, in *Phillips v. Dentons* (2019), Phillips filed suit against TCL in a U.K. court, alleging patent infringement. TCL sued Phillips in French court for breach of ETSI's FRAND obligations. Although Phillips asked the French court to cede jurisdiction to the U.K. courts, the French court determined it had jurisdiction to determine the alleged breach of ETSI's IPR obligations that were subject to French law. Depending on the structure of the U.K.'s exit from the EU, litigants in the U.K. may be able to seek anti-suit injunctions against litigation in EU member states, further increasing the U.K. courts' prominence in global SEP disputes.

Parties may also consider Chinese courts, which offer fast resolution and SEP injunctive relief. The latter was illustrated in *lwncomm v. Sony* (2017), in which the Beijing IP court granted an SEP based injunction, which was subsequently affirmed by the Beijing High Court. Historically, the scope of patent licenses disputed in Chinese courts has been limited to royalties for Chinese SEPs.

For example, in *Xiaomi v. Sisvel* (December 2019) Xiaomi sought an adjudication of a royalty for all Chinese SEPs within Sisvel's portfolio. In *Huawei v. Conversant* (2019), a parallel dispute to *Unwired Planet v. Huawei* in the U.K., Huawei sought adjudication of Chinese SEPs within China. In light of the U.K. court's confirmation of U.K. jurisdiction over global portfolio negotiations, however, the scope of disputes in Chinese courts may expand to include non-Chinese patents. For example, in September 2020, a Wuhan court enjoined Interdigital from seeking an injunction against Xiaomi in India, enforceable by a fine of over \$100,000 per day.

Ultimately, prospective licensors and licensees will need to stay informed about global developments in SEP enforcement policy. In particular, given the worldwide distribution of 5G SEP owners, 5G SEP litigation and licensing will require a coordinated global strategy, particularly as anti-suit injunctions are increasingly used to secure the most favorable jurisdiction for a given dispute.

## Conclusion

As 5G technology continues to permeate modern life, patent owners and implementers alike should consider evolving policies and case law, both within the U.S. and globally, as they negotiate for licenses to 5G SEP portfolios. The various policies may also guide decisions about development of patent portfolios by SEP owners, and about market deployment of products by SEP implementers and prospective licensees.