

Shaobin Zhu & Bo Tang, Morgan Lewis & Bockius LLP, address the advances in vehicular technology and the correlating increase in standard-essential patent licensing and litigation in the automotive industry for continued innovation and protection of these enhancements.







Road to the future: SEP licensing and litigation in the automotive field

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The future of mobility calls for increasingly connected vehicles

Today, emerging vehicular technologies such as automated driving, electric vehicles, and shared mobility have offered a few glimpses of the future of mobility, which involves autonomous, connected, electric, and shared vehicles. To facilitate such a development, a car is increasingly equipped with devices allowing it to communicate with systems inside and outside of the car, thus enabling the integration of communications, control, and information processing across all

aspects of the transportation system (e.g., the vehicle, the infrastructure, and the driver or user)

While the advances of various vehicular technologies bring us a more convenient and enjoyable transportation experience, the ever more electric, automated, and connected vehicles also increasingly subject car manufacturers to licensing and litigation related to standard-essential patents (SEPs).

Emerging vehicular technologies are subject to SEP licensing and potential litigation

The electrification, automation, and connectivity of a vehicle rely heavily on various technology standards. Such technology standards may include 4G/5G, WiFi, Bluetooth, and near-field communication (NFC) for wireless communication;



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Advanced Video Coding (AVC), High Efficiency Video Coding (HEVC), and Versatile Video Coding (VVC) for video compression; Digital Video Broadcasting (DVB) for digital television; IEC 61851 for electric vehicle conductive charging, Qi for wireless charging; radio-frequency identification (RFID); and many others.

An important part of vehicle connectivity is vehicle-to-everything (V2X) communication, which is the communication between a vehicle and any entity that may affect, or may be affected by, the vehicle. V2X incorporates other more specific types of vehicular communication



Shaobin Zhu



Bo Tang

Résumés

Shaobin Zhu is a partner at Morgan, Lewis & Bockius LLP where he advises on intellectual property litigation in US district courts and Section 337 investigations at the US International Trade Commission. Working out of the firm's Silicon Valley and Shanghai offices, Shaobin has helped dozens of Chinese clients successfully resolve their IP disputes in the US as well as guide clients through all stages of patent prosecution and invalidation in the USPTO. Additionally, Shaobin handles matters relating to a variety of technologies, including computer software, telecommunications, smartphones, AI, IoT, semiconductors, video processing, Internet television, LEDs, wearable devices, robotics, 3D printing, consumer electronics, and related electronics.

Bo Tang is an associate at Morgan, Lewis & Bockius LLP where he focuses on intellectual property law, including patent infringement and invalidity proceedings, patent prosecution, due diligence concerning IP issues in transactions, and IP licensing, mainly involving electrical and software technologies. He specializes in a variety of technologies, including AI, 5G NR, 4G LTE, semiconductor, autonomous driving, blockchain, digital circuits, operating systems, database systems. and electronic devices. Resident in the Shanghai office, Bo has worked extensively with companies and organizations in the US, China, Europe, and Singapore, including a number of Fortune 500 companies.

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such as V2I (vehicle-to-infrastructure), V2N (vehicle-to-network), V2V (vehicle-to-vehicle), V2P (vehicle-to-pedestrian), and V2D (vehicle-to-device). Today, V2X communication has been standardized by IEEE 802.11p standards for Wireless Local Area Networks (WLAN) based V2X and 3GPP standards for cellular V2X.

As a result of implementing standardized technologies, a connected vehicle is increasingly subject to SEPs associated with the technology standards. Consequently, the automotive industry now must consider the issues arising in connection with SEP licensing so car manufacturers can benefit from the patented innovations contributed to standards bodies by SEP owners.

Major players in SEP licensing in the automotive field

For a while, many of the owners of SEPs in the automotive field were companies that stood historically in the information, communications, and telecommunication (ICT) industry. However, traditional automobile companies are gradually catching up and playing an active role in the standardization of connectivity technologies for vehicles by declaring a substantial number of their patents as SEPs for such technologies.

It is worth noting that many owners of SEPs in the automotive field have joined a patent pool called Avanci, which specializes in licensing wireless standards (e.g., eCall, 3G, 4G, and 5G) to the automotive industry. According to Avanci's website, around 65 million vehicles have been licensed through its licensing programs so far.

Current state of SEP licensing and litigation in the automotive field

As the automotive industry enters into a new world of electric, automated, and connected vehicles, some SEP holders have started to seek licensing royalties from car manufactures. Some car manufactures who are not used to paying for SEP licensing royalties are slow to embrace such a paradigm shift. As SEP licensing issues become more prominent in the automotive sector, SEP owners and potential licensees have started to ask courts in Europe and the United States to resolve their differences.

In the ICT industry, it is customary for SEP holders to grant licenses at the end-product level, e.g., at the level of a smartphone. There is precedent for licensing at the end-product level in the ICT sector, as a smartphone relies heavily on the implementation of the standards covered by the SEPs to realize its functions. But some car manufactures argue that SEPs should be licensed at the component level rather than at the end-product level in the automotive sector because the connectivity of the end-product (i.e., a car) is a nice-to-have feature rather than

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something that the car relies on to perform its primary functions, which is passenger transportation.

One high-profile SEP licensing dispute in the automotive sector is between Nokia and Daimler. In 2019, Nokia sued Daimler for infringement of several SEPs in German courts. One of the main arguments put up by Daimler and its suppliers is that Nokia's licensing activity is not FRAND because Nokia refused to offer a license to Daimler's suppliers. In late 2020, a couple of German courts ruled separately in favor of Nokia, finding that Daimler infringed two Nokia SEPs, and issued Germany-wide injunctions on Mercedes sales. The injunctions were never enforced. On June 1, 2021, Nokia and Daimler announced the settlement of their SEP licensing dispute. The confidential settlement includes Daimler taking a license to Nokia's portfolio of wireless communications SEPs.

Before the settlement was reached, a German court referred a series of questions to the Court of Justice of the European Union (CJEU), including who in the supply chain is entitled to a FRAND license. With the settlement between Nokia and Daimler, the CJEU did not have a chance to rule on this issue.

While Nokia and Daimler were busy trying to resolve their differences in German courts, auto parts supplier Continental took their aggrievance against Avanci to the courts in the United States, mainly arguing that Avanci's refusal to grant a license to Continental as a component manufacturer on FRAND terms constituted anticompetitive conduct in violation of the Sherman Antitrust Act. This effort by Continental did not make headway. By order dated June 21, 2022, the US Court of Appeals for the Fifth Circuit affirmed a district court ruling dismissing Continental's suit for failing to state claims under the antitrust laws.

Trend and strategy

Some in the automotive sector continue to assert that details of FRAND law are unsettled and they claim to face high stakes in SEP licensing disputes. As SEP licensing in the automotive sector grows there may be continuing instances in which FRAND issues will be addressed through litigation and legislative activities around the world.

Courts have provided guidance already concerning processes for good faith FRAND licensing. This includes cases in the US and a 2015 decision by the CJEU. These court decisions, although not specifically directed to the automotive sector, should provide guidance for automotive sector SEP licensing. The ultimate goal, of course, is for SEP owners and otherwise infringing standards implementers to reach an SEP

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licensing agreement through commercial negotiations that makes economic sense for both sides in an efficient manner. When that goal is unattainable, even where both parties act in good faith, as is the case outside the automotive sector, the parties may resort to judicial or arbitral determinations of FRAND license terms.

Since there are relatively few SEP licenses taken by automotive companies and SEP licensing in this sector is arguably different from SEP licensing in the ICT industry, early licenses and litigation may have an outsized impact on FRAND licensing frameworks and royalty rates for the automotive industry. For example, the settlement between Nokia and Daimler and the rejection of Continental's complaints in the courts in the United States may nudge car manufactures to be more acquiescent towards taking SEP licenses by themselves rather than upstream suppliers.

Once parties fail to reach a licensing agreement through negotiation and decide to go to court or arbitration to settle their discord, venue is probably one of the most important issues to consider. Since patents are territorial rights, parties need to go to courts in each country or region that they care about to settle their SEP licensing disputes. That would be a laborious and costly process. However, the Supreme Court of the United Kingdom held in a decision in 2020 that the UK courts are able and willing to determine the terms of a global FRAND license. Some landmark cases coming out of the courts in China and in the United States have indicated that they also are willing to set global FRAND rates. Parties may seek to bring their FRAND lawsuits in these countries in order to avoid the cost and hassle of litigating in each jurisdiction separately.

In addition to convenience and efficiency, parties also need to pay close attention to their likelihood of success in a particular venue. For example, it is relatively easier for an SEP holder to get a German court to issue an injunction if the patent is infringed and the FRAND defense of the other side fails, as manifested by the disputes mentioned above. Such an injunction is an important tool for SEP holders' protection of their very risky investment in R&D leading to SEPs, and to their incentive to contribute such innovation to standards, which would be undermined if implementers were permitted to continue infringing the SEPs.

Potential licensees, on the other hand, may want to bring SEP licensing disputes in countries where courts are less likely to issue injunctions and may even issue anti-injunction orders that stop SEP holders from enforcing injunctions obtained in other jurisdictions until the dispute

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is resolved in a court where a case is originally brought. For example, the US Court of Appeals for the Ninth Circuit affirmed an anti-suit injunction in a FRAND contract dispute in 2012, barring the SEP owner from enforcing an injunction from a German court until the US court could resolve the parties' FRAND dispute. The Ninth Circuit's decision was based on the global nature of the SEP license at issue.

The continued growth of Avanci is another phenomenon the automotive industry needs to take into account in connection with SEP licensing. As a patent pool with a sizeable SEP portfolio, Avanci offers increased licensing efficiency and reduces disputes. However, Avanci is far from a one-stop shop as it does not cover all SEPs, nor does it cover all standardized technologies that a car maker may need. Moreover, if a carmaker decides to subscribe to an Avanci licensing program and also wants to crosslicense its patents to the licensors behind the Avanci licensing program, it will need to develop its own licensing program to deal with the crosslicensing part of the transaction separately.

In conclusion, there are many potential questions related to SEP licensing in the automotive industry. We urge parties involved to act prudently and judiciously, as their actions

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may have far-reaching impact on shaping the landscape of SEP licensing in the automotive sector. Though two things are certain: the importance of the technologies covered by SEPs to each vehicle will continue to grow, and the impact of SEP licensing on the automotive industry will grow accordingly.

Contact

Morgan, Lewis & Bockius LLP

5th Floor, The Center, 989 Changle Road, Shanghai 200031, China

Tel: +86.21.8022.8535 +86.21.8022.8535 www.morganlewis.com





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