

## **0. Introduction**

This “Basic Concept” has been formulated based on the report (dated March 31, 2020) of the “Study Group on Fair Value Calculation of Standard Essential Patents for Multi-Component Products,”<sup>1</sup> upon commission by the Policy Planning and Coordination Division, Manufacturing Industries Bureau, the Ministry of Economy, Trade and Industry.

### **1. Objective**

In recent years, through the Internet of Things (hereinafter referred to as “IoT”), a change called the “Fourth Industrial Revolution” in which various infrastructures and devices are connected through the internet has rapidly progressed in Japan and abroad. In order to promote this, Japan advocates the concept of “Connected Industries” as what Japanese industries should aim for.

On the other hand, licensing negotiations involving “standard essential patents” (hereinafter referred to as “SEPs”), which are necessary for implementing standards concerning wireless communications between devices, have become a major problem.

Conventionally, since licensing negotiations over SEPs for information and communication technology have been conducted mainly by telecommunications carriers, business entities in this industry can easily evaluate the scope, the essentiality, and the value of the patents held by each other. This made it relatively easy for the negotiating parties to agree on royalties.

However, with the spread of IoT, SEP licensing negotiations are expected to be held more often between SEP holders and business entities in industries other than the telecommunications industry.

In particular, for multi-component products that contain many parts, such as personal computers, game machines, automobiles, construction machines, intelligent

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buildings, etc., it is common that multiple manufacturing companies are involved in the production stages from each part through to the end product, forming a hierarchical supply chain.

Risks involving SEP licensing negotiations and disputes have been increasing significantly because the licensing negotiation practices and the market views for royalties are very different between the business entities in the industries related to such multi-component products and the SEP holders related to information and communication technology. Especially for SMEs, the risks associated with SEP licensing negotiations and disputes are likely to be very large.

In addition, since an SEP is incorporated in the standard specification, the implementer of the SEP has no other option but to obtain a license, which makes the implementer's negotiating position overwhelmingly weaker than the case of the implementer of a non-SEP. Therefore, the standards-setting organizations formulate policies concerning SEPs (IPR Policy) by setting the conditions to license SEPs as fair, reasonable and non-discriminatory (hereinafter referred to as "FRAND"). However, the concept of proper calculation of SEP royalties still remains in dispute.

While IoT is spreading across various industries and will bring benefits to people's lives, the increasing risk of licensing negotiations on SEPs will not only make it difficult to invest in IoT and harm both SEP holders and implementers, but also may hinder economic and social development.

For this reason, in order to help facilitate negotiations on SEP licenses, we hereby present the basic concept of calculating SEP royalties for multi-component products. Note that some SEPs do not have a FRAND declaration, but our "concept" should also be applied to such SEPs.

## **2. Three principles for calculating the fair value of SEP for multi-component products**

**Principle (1): The parties to a licensing agreement should be decided based on the concept of "license to all."**

The actors involved in producing a multi-component product form a hierarchical structure in which the end-product manufacturer is at the top, and the suppliers that supply parts to the end-product manufacturer exist as primary subcontractors, secondary subcontractors, etc. For this reason, who the parties to a licensing agreement should be becomes an issue in the supply chain of a multi-component product.

In this regard, it is appropriate to adopt the concept of “license to all,” which means that an SEP holder must license all entities who wish to obtain a license, regardless of their transaction stages in the supply chain, for the following reasons.

First, because SEPs are required to be “non-discriminatory” as a FRAND condition, they should not treat the potential implementers discriminately based on their transaction stages.

Second, in the case of multi-component products, an entity possessing detailed knowledge of the main product that implements the SEP technology exists somewhere in the supply chain. Therefore, the party to the negotiation should not be limited to the end-product manufacturer in order to calculate the royalty appropriately.

Furthermore, in the case based on the “license to all” concept, the SEP holder may claim royalties from, for example, both the supplier and the end-product manufacturer, with regard to the same SEP technology implemented in the multi-component product. In this case, the SEP holder should avoid the double gain of royalties from multiple entities in the supply chain.

**Principle (2): Royalty should be calculated using a “top-down” approach.**

If many SEP holders individually demand royalties, such royalties may “stack up,” making the cost for implementing the standard excessively high (“Royalty Stacking”).

A “top-down” approach which determines the appropriate rate by calculating the ratio of contribution by all SEPs to the standard can avoid this “Royalty Stacking” problem. This approach is also appropriate as it enables all SEP holders to obtain a fair share.

**Principle (3): Royalty should be calculated based on the portion to which the SEP technology contributes (contribution rate) in the value of the main product that implements the SEP technology.**

There is controversy over whether to adopt the smallest salable patent practicing unit (SSPPU) or the entire market value (EMV) for the calculation of royalties.

In this regard, it is necessary to consider the further consequences of legal precedents and theories of each country, but the essential question is not whether to base the royalty calculation on SSPPU or EMV, but that it is fundamental to calculate royalties based on the portion to which the SEP technology contributes (contribution rate) in the value of the main product in which the SEP technology is implemented. In this connection,

in the case of automobiles,\* which can be said to be typical of multi-component products that contain many parts, the value calculated based on the contribution rate has been calculated based on the parts that essentially implement the patent concerned.

In any case, whether the basis of calculation is SSPPU or EMV, royalties that deviate significantly from the value calculated based on the contribution rate are not the fair value of the SEP.

However, if the parties do not consider the calculation based on the strict contribution rate to be practical, a simpler calculation method may be adopted, such as setting the royalty per product to a fixed amount. Even in that case, it is basically desirable that the fixed amount does not greatly deviate from the amount calculated based on the contribution rate.

\* For example, an automobile is manufactured by combining approximately 30,000 (modules) complex components. In the automotive industry, there is the system of division of labor in which each supplier designs and develops its own products and is responsible for quality assurance. This system contributes to ensuring the quality of automobiles.

### **3. Alert for small and medium-sized enterprises (SMEs)**

As IoT spreads into the economy and society, the number of cases where SMEs use IoT will also increase, and in the future, negotiations and disputes between SEP holders and SMEs on SEP licenses are expected to increase.

However, compared to SEP holders and large companies, SMEs are at a greater risk of concluding licensing agreements on unfavorable conditions because they have insufficient resources for dealing with SEPs, such as professional human resources and information on negotiations. For this reason, there is a possibility that some SEPs may seek to obtain an unreasonably high license fee or settlement money from SMEs by threatening them with patent infringement lawsuits or exercise of the right to injunction.

Therefore, when an SME receives a demand for concluding a licensing agreement from an SEP holder by a warning letter, etc., first of all, it should first consult with an intellectual property expert and consider appropriate measures. At that time, another available method is to use a consultation desk of a public organization, such as the IP Comprehensive Helpdesks of the National Center for Industrial Property Information and Training (INPIT).

The JPO “Guide to Licensing Negotiations Involving Standard Essential Patents” (hereinafter referred to as the “Guide”) (June 5, 2018) points out that the following are

examples of actions by an SEP holder that may increase the likelihood of the SEP holder being perceived as acting in bad faith.

- (1) Demanding injunctive relief before or immediately after sending a warning letter to the implementer, or immediately after opening a negotiation,
- (2) Not disclosing its documents identifying the SEPs and documentation mapping SEP claims to the standards and/or products such as claim charts, when offering licensing negotiations to an implementer, such that the implementer can understand the SEP holder's claims,
- (3) Claiming that it will not provide documentation mapping SEP claims to the standards and/or products such as claim charts to the implementer unless the implementer concludes a confidentiality agreement, even though the documentation does not include confidential information,
- (4) Making an offer that sets a time limit that does not allow a reasonable period of time for consideration; or
- (5) Not disclosing the content of a portfolio to the implementer (the technologies, number of patents, regions, etc., covered by the portfolio).

When receiving a demand for concluding an agreement for an SEP license, rather than responding in a hurry, it is desirable for SMEs to respond appropriately after thoroughly confirming whether the SEP holder has performed any of the abovementioned actions. Thereafter, it is also appropriate to refer to the "Guide" to learn how to proceed with the necessary negotiations with the SEP holder.

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