

# Research and Study Concerning the Method for Determining the Amount of Infringement Damages for Standard Essential Patents

The First International Affairs Committee  
Japan Intellectual Property Association

**Abstract:** In recent years, companies have increasingly used standards as a means of supporting their global business operations. The continuing proliferation of standards throughout the world as a result of such trend is leading to an increasing number of cases claiming damages for infringements of standard essential patents (SEPs) by users. This situation presents litigation risks that cannot be overlooked by Japanese companies engaged in global business. It is important to understand the approaches and bases being used by courts for determining the amount of infringement damages for SEPs. This paper introduces the approaches being used to determine the amount of infringement damages for SEPs, particularly those in the United States, where many precedents are accumulating. It then considers some key considerations in such approaches.

## Table of Contents

- |   |  |
|---|--|
| 1. Introduction   | Infringement Damages Based on SEPs in the US   |
| 2. Method Used in the US for Determining the Amount of Infringement Damages                               | 5.1 Considerations from the Standpoint of Alleged Infringer  |
| 3. Impact of RAND Declarations on the Amount of Determination of Infringement Damages in the US           | 5.2 Considerations from the Standpoint of SEP Holder   |
| 3.1 Types of SEP Holders  | 6. Determination in Japan of the Amount of Infringement Damages in Consideration of the RAND Obligations   |
| 3.2 Exercise of Patent Rights by Different Types of SEP Holders   | 6.1 Precedent in Japan   |
| 3.3 Analysis  | 6.2 Outline of the Case  |
| 4. Determination in the US of the Amount of Infringement Damages in consideration of the RAND Obligations | 6.3 Determination of the Amount of Infringement Damages  |
| 4.1 Microsoft Case  | 7. Comparison between the Methods Used by US and Japanese Courts for Determining the Amount of Infringement Damages in Consideration of the RAND Obligations |
| 4.2 Innovatio Case  | 8. Conclusion  |
| 4.3 Ericsson Case   |  |
| 4.4 Analysis  |  |
| 5. Considerations in Claims for   |  |

## 1. Introduction

When a company intends to standardize its technology, it proposes the technology to a standardization organization, such as ISO.<sup>1)</sup>

During this procedure, the company is requested by the standardization organization to make a RAND declaration. This declaration announces that, if the company's patent covering the proposed technology becomes essential to the implementation of a standard (i.e. Standard Essential Patent: SEP), the company will license the patent under Reasonable and Non-Discriminatory terms (i.e. RAND terms; in this paper, "RAND" includes the concept of "FRAND," with "F" standing for "Fair").

This measure is taken due to the following reasons. In order for a third party to manufacture a product in compliance with a standard, the third party inevitably needs to implement the SEPs for the technology essential to that standard. If the holder of the SEPs were allowed to freely seek an injunction or demand high royalty, it would be impossible for the third party to enter the market by exploiting such standardized technology, leading to an unreasonable limitation on competition.

However, even though companies holding SEPs make RAND declarations, there is no uniform standard for setting royalties by these companies.

Some standards provide a system

called a "patent pool," under which licenses for a number of SEPs can be acquired collectively where certain conditions are met. It is often difficult, however, to acquire licenses for all the required SEPs through a patent pool.

License negotiations for SEPs sometimes fail to reach agreement between the parties and go to litigation, because of disagreement over the method for determining royalties that satisfy the relevant RAND terms.<sup>2)</sup>

To address this problem, we first extracted 30 rulings from district courts and CAFC rulings made in relation to SEPs during the past five years in the United States, where many precedents are accumulating. We then picked up and analyzed the four rulings in which a basis for determining the amount of infringement damages was specified.

Based on the findings, we identified the considerations when dealing with cases of claims for SEP infringement damages in the United States and examined the application of the findings to similar damages claim cases in Japan, where there are very few relevant precedents.

This paper was prepared by the members of the Second WG, consisting of: Tadashi Ogawa (chairman, NTT), Yutaka Isogai (Honda Motor), Yasuyuki Imazu (Sato Holdings), Masatake Kinoshita (NHK Spring), Yuichi Saho (Softbank Mobile), Naoki Sendaya (Brother Industries), Gou Shirouzu (Gigaphoton) and Masateru Ito (vice-chairman, Olympus).

## **2. Method Used in the US for Determining the Amount of Infringement Damages**

Article 284 of the US Patent Law provides to the effect that the claimant damages shall be in no event less than a reasonable royalty for the use made of the invention by the infringer.<sup>3)</sup>

In addition, two methods for determining infringement damages (i.e. the method for determining reasonable royalty and the method for determining lost profits) have been established by common law. In patent infringement lawsuits in which the method for determining reasonable royalty is adopted, the determination method through virtual negotiation is used to determine the amount of infringement damages.<sup>4)</sup>

When determining a royalty by using the determination method through virtual negotiation, the factors specified in the Georgia Pacific ruling<sup>5)</sup> (Georgia-Pacific factors) are considered in the context of each case.

These factors are used to virtually determine the royalty that would have been agreed if the licensor and the licensee had entered into negotiation upon the commencement of an act of infringement.

## **3. Impact of RAND Declarations on the Amount of Determination of Infringement Damages in the US**

## **3.1 Types of SEP Holders**

Where a person has been involved in standardization activities and if the patent technology proposed by the person to a standardization organization is adopted as a standard, the person becomes the holder of a SEP.

However, it is sometimes difficult for a standardization organization to thoroughly investigate patents held by third parties who are not involved in standardization activities, and patents held by such third parties may possibly be included in a standard.

Thus, SEP holders can be classified into the following three types:

### Type A

SEP holders of this type are those who have been involved in standardization activities and whose patent technology that they proposed to a standardization organization was adopted as a standard.

### Type B

SEP holders of this type are those who have never been involved in standardization activities but whose patent technology devised by themselves was included in a standard.

### Type C

SEP holders of this type are those who have never been involved in standardization activities but who succeeded to a SEP.

## **3.2 Exercise of Patent Rights by**

## Different Types of SEP Holders

The act of exploiting a standard without the authorization of a SEP holder constitutes an infringement of its SEPs.

The following sub-sections consider, based on the cases described therein, how the existence of the obligations associated with a RAND declaration (hereinafter, the “RAND obligations”) affects the determination of infringement damages when the three different types of SEP holders described above exercise their patent right against a person who exploits the standard without authorization.

### (1) Exercise of right by Type A SEP holder

A Type A SEP holder is assumed to have made a RAND declaration when the patent technology proposed by the SEP holder was adopted by a standardization organization as a standard.

Notable examples of cases in which such a SEP holder exercised its right against an entity exploiting the standard are the Microsoft case6), 7) and the Ericsson case8), 9).

In these cases, the US courts held, concerning the amount of infringement damages, that the amount should be determined after modifying the normal method of determining the amount of infringement damages by taking into consideration the RAND obligations of the SEP holder.

The modifications actually made will be detailed in Section 4 below.

### (2) Exercise of right by Type B SEP holder

The CSIRO case10) is a good example in which a Type B SEP holder exercised its right.

CSIRO exercised its right against CISCO and CISCO Linksys, alleging that their products infringe the SEPs for CSIRO’s four standards for wireless LAN: 802.11a, 802.11g, 802.11n and 802.11ac.11)

CSIRO had been involved in the standardization activities for 802.11a and made a RAND declaration for that standard only. For the other three standards, CSIRO had not been involved in standardization activities nor had it made a RAND declaration.

Thus, CSIRO is regarded as a Type A SEP holder with respect to 802.11a, while it is regarded as a Type B SEP holder with respect to the other three standards.

The US court held that, as for the cases of the three standards for which CSIRO had not made a RAND declaration, the infringement damages should be determined by applying the normal method for determining infringement damages as is, because CSIRO did not have the RAND obligations.

In this case, the court applied the normal method as is to determine the infringement damages, based on its view that the impact of the defendant’s

unauthorized implementation of 802.11a, for which CSIRO had the RAND obligations, would be extremely small like the other three.

### (3) Exercise of right by Type C SEP holder

The Innovatio case<sup>12</sup>) is an example in which a Type C SEP holder exercised its right.

Innovatio was a successor to the SEPs for wireless LAN from a third party and exercised its right based on the SEPs against a manufacturer of a wireless LAN device and the users of the wireless LAN device.

Innovatio had not been involved in the standardization activities nor had it made a RAND declaration for the wireless LAN technology. However, a RAND declaration had been made for the SEPs by the third party before Innovatio's succession.

The US court held that, in a situation like this, it was reasonable to consider that Innovatio had succeeded to the RAND obligations when it acquired the SEP, and that, similarly to cases where a Type A SEP holder exercises its right, the infringement damages should be determined by applying the normal method for determining infringement damages after modifying it in consideration of the RAND obligations.

### 3.3 Analysis

From the US precedents of the

Microsoft case and the Ericsson case (Type A) and the Innovatio case (Type C), it can be seen that, where a US court considers that a SEP holder has the RAND obligations, it tends to determine the infringement damages by applying the normal method of determining infringement damages after modifying it in consideration of the RAND obligations, regardless of whether or not the SEP holder itself had made the relevant RAND declaration.

On the other hand, as seen from the precedent of the CSIRO case (Type B), where a US court decides that the right based on a SEP was exercised by a SEP holder without the RAND obligations, the court tends to apply the normal method as is to determine the infringement damages.

Therefore, it can be concluded that, in the United States, whether or not a SEP holder has the RAND obligations affects the determination of infringement damages by courts.

This conclusion raises the question: how does a US court determine infringement damages when it takes the RAND obligations of a SEP holder into consideration?

The following section introduces some specific determination methods in chronological order of the date of issuance of the relevant rulings.

### 4. Determination in the US of the Amount of Infringement Damages in consideration of the RAND Obligations

## 4.1 Microsoft Case

### (1) Outline of the case

The Microsoft case is classified as Type A, as introduced in Section 3. Motorola made an offer of a license to Microsoft, based on its SEPs for H.26413) and 802.11. Motorola had made RAND declarations for these SEPs. In this offer, Motorola specified a royalty of 2.25% on each of Microsoft's final products, such as Xbox® and Windows®. Dissatisfied with the royalty rate, Microsoft sought a court to determine a reasonable royalty in consideration of the RAND obligations.

In the same lawsuit, Motorola claimed damages against Microsoft.

### (2) Modification of Georgia-Pacific factors

A SEP holder for a standard and the user of the standard determine a royalty satisfying the RAND terms through individual negotiation. In light of this fact, the US court adopted the method that is used for determining a reasonable royalty through virtual negotiation, as the method for determining infringement damages.

As described above, in determination through virtual negotiation, the method that applies the Georgia-Pacific factors is used to determine infringement damages.

In the Microsoft case, however, the amount of infringement damages was

determined by applying the Georgia-Pacific factors after modification (see Table 1), in consideration of the RAND obligations of the SEP holder and the fact that users of the standard must receive licenses for SEPs from many SEP holders.

This measure reflected the recognition of the US that the purpose of a RAND declaration should be interpreted to expand the adoption of the relevant standard and that, when determining the amount of infringement damages for SEPs for which a RAND declaration had been made, the hold-up problem (wherein a standard becomes unavailable due to prohibitively high royalties for some of the SEPs of the standard) or the royalty stacking problem (wherein a standard becomes unavailable due to the prohibitively high cumulative total of the royalties for all the SEPs of the standard) should be given consideration.

The court in the Microsoft case first determined the royalties satisfying the RAND terms and the upper and lower limits for the royalties satisfying the RAND terms, based on the modified Georgia-Pacific factors and using as indices the business practices for the license business related to patents for which RAND declarations were made, etc., and then specified the amount of infringement damages for each SEP.

### (3) Determination of the amount of

**infringement damages**

1) Determination of the amount of infringement damages for SEP H.264  
 (i) Royalty satisfying the RAND terms  
 Many of the SEPs for the H.264 standard have been licensed through a patent pool. Moreover, there are many

licensees in the patent pool. Based on these facts, the royalty of the patent pool license was used as an index for determining the amount of infringement damages.

**Table 1 Modification of Georgia-Pacific factors**

No.	Georgia-Pacific factors	Modified Georgia-Pacific factors as applied
1	Royalties for licensing the patent (established royalties)	Royalties should be those agreed upon through negotiation under the RAND obligations or equivalent terms.
2	Royalties licensee pays for use of other comparable patents	No modification
3	Nature and scope of license in terms of exclusivity/non-exclusivity, territorial restrictions and customer restrictions	No modification
4	Policy to maintain patent monopoly by restricting the acts of licensees	In light of the RAND declaration, the policy to maintain patent monopoly should not be considered.
5	Commercial relationship between licensor and licensee, such as whether they are competitors	In light of the RAND declaration, commercial relationship should not be considered.
6	Degree of contribution to the sales of the patented invention, and effect of deriving non-patented or derivative products	Where the degree of contribution to the sales of the patented invention, etc. are considered, the value of the patent technology and the value of being adopted into a standard should be distinguished.
7	Duration of patent and term of license	No modification

8	Profitability of the patented invention, such as commercial success and attainment of popularity	Where the profitability of the patented invention is considered, the value of the patent technology and the value of being adopted into a standard should be distinguished.
9	Utility of patent property over existing products	Utility of patent property should be compared with the technology that was able to be described in the standard, rather than with patent technology.
10	The nature and feature of the patented invention, and the benefit of users	Where the nature of the patented invention, etc. is considered, the value of the patent technology and the value of being adopted into a standard should be distinguished.
11	The extent of infringement of the patent and its evidence	Where the extent of infringement, etc. is considered, the value of the patent technology and the value of being adopted into a standard should be distinguished.
12	Customary profitability rate for specific products or competitive products	When determining customary rates, the business practices for the license business for the patent for which a RAND declaration was made should be considered.
13	The portion of realizable profit attributable to the patent as distinguished from non-patented elements, manufacturing processes, business risks, significant features and improvements added by the infringer	Where the portion of realizable profit attributable to the patent is considered, the value of the patent technology and the value of being adopted into a standard should be distinguished.
14	Opinions and testimonies of qualified experts	No modification



15	Royalties that would have been agreed upon through hypothetical arm's length negotiation at the time when infringement began	Royalties that would have been agreed upon through arm's length negotiation should be determined in light of the RAND declaration and its purpose.
----	--	--

Microsoft was both a licensor and licensee of the patent pool. Motorola was not a licensor of the patent pool.

The court first found that royalties through individual negotiation are generally higher than those of a patent pool. Then, in consideration of the value expected if Microsoft joined the patent pool and the value expected if Motorola did not join the patent pool, the court held that the royalty satisfying the RAND terms would

be 0.555 cents per unit. This amount was three times higher than the royalty to be received by Motorola if Motorola had joined the patent pool as a licensor. The court also held that the amount was the lower limit of the royalty to which Motorola was entitled.

The royalty to which Motorola would have been entitled if it had joined the patent pool was determined based on the ratio of the number of patents held by Motorola in various countries to the number of patents of the patent pool that had been granted in various countries, on the assumption that Motorola and all the SEP holders for the H.264 standard who had made a RAND declaration to the standardization organization joined the current patent pool as licensors under the same terms and conditions.

(ii) Lower limit of royalty satisfying the RAND terms

As described above, the court judged that the lower limit of the royalty satisfying the RAND terms was 0.555 cent per unit.

(iii) Upper limit of royalty satisfying the RAND terms

Among all the royalties submitted as evidence, the court adopted, as an index for determining the upper limit of the amount of infringement damages, the royalty proposed during discussion concerning the launch of the patent pool for H.264, which was the highest royalty of all the patents for which a RAND declaration was made.

Then, similarly to the method used when determining a royalty satisfying the RAND terms, the court decided the upper limit as 16.389 cents per unit, based on the recognition that the upper limit would be the amount equal to three times the royalty to which Motorola would have been entitled if it had joined the patent pool and if the patent pool had adopted that royalty.

(iv) Specification of the amount of infringement damages

For Xbox(R) and Windows(R), the court decided that the amount of

infringement damages should be either 0.555 cents per unit (which was the royalty satisfying the RAND terms royalty) or an amount within the range between the lower limit (i.e. 0.555 cents per unit) and the upper limit (i.e. 16.389 cents per unit) of the royalty satisfying the RAND terms. For other products, the court specified the amount of infringement damages to be the lower limit, i.e. 0.555 cents per unit.

2) Determination of the amount of infringement damages for SEPs for the 802.11 standard

(i) Royalty satisfying the RAND terms

The court considered that, although a patent pool for the 802.11 standard exists, the patent pool could not be said to have been successful compared with that for the H.264 standard in terms of the number of patents granted and the number of licensees. Therefore, the court chose not to use the royalty of that patent pool as the only index for determining the amount of infringement damages for the 802.11 standard.

Microsoft was neither a licensor nor licensee of the patent pool. Motorola was not a licensor of the patent pool, either.

The court adopted two additional royalties as indices. One was the royalty being paid by Marvel to ARM for the latter's SEPs of the 802.11 standard. The other was the royalty specified in a report of Intecap, which had been prepared in consideration of

the SEP royalty stacking problem. The court combined the three indices to determine the royalty satisfying the RAND terms.

More specifically, based on the first index, the court obtained 6.114 cents per unit by tripling the royalty to be received by Motorola if Motorola had joined the patent pool for 802.11 as a licensor, in the same manner as the determination with respect to H.264. The amount obtained from the second index, which was the royalty being paid by Marvel to ARM, was 3.5 cents per unit. The third index, which was the amount estimated in the Intecap report as the royalty to be received by Motorola, was adjusted based on an expert testimony, resulting in an amount of 0.8 cents per unit. The court averaged these three amounts and determined that 3.471 cents per unit would be the amount of the royalty satisfying the RAND terms.

(ii) Lower limit of royalty satisfying the RAND terms

In the absence of sufficient evidence for determining the lower limit, the court decided that it would be able to use the amount determined based on the Intecap report, i.e. 0.8 cents per unit, as the lower limit.

(iii) Upper limit of royalty satisfying the RAND terms

The court judged that the upper limit would be an amount of 19.5 cents per unit. This amount was three times

higher than the amount of the royalty which was determined based on the royalty of the patent pool for 802.11 and which had been proposed by Microsoft to Motorola.

(iv) Specification of the amount of infringement damages

For Xbox(R), the court decided that the amount of infringement damages should be either 3.471 cents per unit (which was the royalty satisfying the RAND terms royalty) or an amount within the range between the lower limit (i.e. 0.8 cents per unit) and the upper limit (i.e. 19.5 cents per unit) of the royalty satisfying the RAND terms. For other products, the court specified the amount of infringement damages to be the lower limit, or 0.8 cents per unit.

## 4.2 Innovatio Case

(1) Outline of the case

The Innovatio case, classified as Type C, was instituted by Innovatio to claim against a manufacturer of a wireless LAN device, etc. for infringement damages, based on 19 SEPs related to the technology of wireless LAN, to which Innovatio had succeeded from a third party.

(2) Determination of the amount of infringement damages

The trial was conducted on the assumption that Innovatio had the RAND obligations, since, as mentioned above, Innovatio itself did not make a

RAND declaration but one had been made for the SEPs before Innovatio succeeded to them.

In consideration of the RAND obligations of Innovatio, the amount of infringement damages was determined in a similar manner as the Microsoft case, that is, the Georgia-Pacific factors were applied after modification and care was taken so as not to cause the royalty stacking and other problems to arise.

Specifically, the court first specified the upper limit of the royalties for all the wireless LAN SEPs, including the 19 SEPs held by Innovatio, to be 1.8 dollars per unit, which was the average amount of profit from the wireless LAN chip. The court then determined the royalty satisfying the RAND terms to be 9.56 cents per unit, based on the portion of realizable profit attributable to Innovatio's SEPs. This was the amount at which the amount of infringement damages was determined.

When specifying the contribution of Innovatio's SEPs to the standard, the court relied on an expert testimony that, among approximately 3,000 SEPs for the wireless LAN, 300 SEPs accounted for 84% of the contribution to the wireless LAN function of the electronic device, and that the 19 SEPs of Innovatio were included in the 300 SEPs.

## 4.3 Ericsson Case

## (1) Outline of the case

The Ericsson case, classified as Type A as introduced in Section 3, was instituted by Ericsson to claim against D-Link, etc. for infringement damages, based on 9 SEPs related to the 802.11 standard.

## (2) Determination of the amount of infringement damages

### 1) District court ruling

A district court found infringement of 3 out of 9 SEPs and the amount of infringement damages was presented.

The amount of infringement damages was determined as 0.15 dollars per unit, and the total amount of infringement damages individually imposed on the defendants ranged from approx. 0.45 million dollars to approx. 3.5 million dollars.

The amounts of infringement damages approved by the jurors were obtained by using the determination method that was proposed by the expert designated by Ericsson. This method determined the royalty satisfying the RAND terms in two phases.

In the first step, the method determined the royalty for the entire portfolio of Ericsson's SEPs involved in the 802.11 standard, based on the license revenue achieved by Ericsson from the entire portfolio.

In the second step, the method distributed the royalty for the portfolio determined in the first step among all the relevant SEPs, and determined the amount of royalty for the SEPs that

were covered by the litigation by removing the amount attributable to the SEPs that were not covered by the litigation.

The license revenue from the entire portfolio of the SEPs involved in the 802.11 standard, determined in the first step, was obtained with reference to the six license agreements actually executed by Ericsson.

The district court recognized that the royalty thus determined satisfied the RAND terms, because it could be said that the RAND terms had already been factored in, on the grounds that (a) Ericsson had entered into these license agreements after making RAND declarations and (b) the royalties for the license agreements actually executed by Ericsson reflected the value of the patents of Ericsson in the market.

D-Link, etc. made a counterargument by presenting an expert testimony that, if the determination method proposed by the expert designated by Ericsson was adopted, the royalty stacking problem would arise because the theoretical cumulative royalty for the chip complying with the 802.11 standard priced at 2.50 dollars per unit would amount to 23.30 dollars per unit. The district court dismissed the counterargument, stating that the defendants failed to present evidence concerning whether or not the royalty stacking problem would arise on actual products.

## 2) CAFC ruling

D-Link, etc. appealed to the CAFC against the decision of the district court. The CAFC referred the case back to the district court on the grounds that there were three errors in the charge to the jurors:

- (i) The district court failed to charge the jurors to sufficiently consider the content of the RAND declaration actually made by Ericsson.
- (ii) The court failed to charge the jurors to separate the value of the patent technology from the value of the entire standard.
- (iii) The district court did not charge the jurors that a royalty satisfying the RAND terms should be determined based on the fact that the value of the invention, rather than the value of being included in the standard, satisfies the RAND terms. Instead, the district court charged the jurors to consider the Georgia-Pacific factors, which were irrelevant to this case.

Regarding the application of the Georgia-Pacific factors, the CAFC pointed out that, under the RAND terms for this case, at least factor Nos. 4, 5, 8, 9 and 10 are irrelevant and that the other factors should have been applied after modification.

The CAFC further argued that, when determining the amount of infringement damages in consideration of the RAND obligations, the uniformly-modified Georgia-Pacific

factors should not be applied automatically as if they were formulas, but that these factors should be modified as appropriate according to the content of the RAND declaration actually made.

Regarding the method used by the district court of determining the amount of infringement damages with reference to the royalties for the license agreements actually entered into by Ericsson, the CAFC denied the validity of such method, on the grounds that these royalties were the result of also reflecting the value of the cross-licenses, etc. between the parties to the agreements and thus the royalties should not be considered to be the same in nature as the royalties at the time of infringement.

As for the validity of the counterargument by way of raising the royalty stacking problem and the hold-up problem, the CAFC supported the decision of the district court, based on a similar finding that it was impossible to discuss such problems unless evidence concerning whether or not such problems would arise on actual products was presented.

## 4.4 Analysis

From the precedents of the Microsoft case, the Innovatio case and the Ericsson case, it can be seen that US courts are likely to apply the Georgia-Pacific factors after modification when determining the

amount of infringement damages in consideration of the RAND obligations of a SEP holder.

In the Microsoft case and the Innovatio case, in which the Georgia-Pacific factors were applied after modification, each court took the royalty stacking problem, etc. into consideration and specified the cumulative royalty, which included the royalties for the SEPs in suit and those for the other SEPs involved in the standard. The court then determined the royalty that satisfied the RAND terms by distributing the cumulative royalty across all the SEPs based on the different degrees of contribution of these SEPs to the standard, etc.

Furthermore, in the Ericsson case, which was referred back to the district court by the CAFC, a similar finding was presented by the CAFC that the value of the patent technology should be separated from the value of the entire standard.

Based on the foregoing, where the method of determining the amount of infringement damages in consideration of the RAND obligations is used, the resultant amount of infringement damages is expected to be lower than the amount obtained by the normal method of determining the amount of infringement damages.

Within the scope of the present research, the Microsoft case was the only case in which the content of modification of the Georgia-Pacific factors was expressly indicated. The

Innovatio case, which followed the Microsoft case, simply applied the Georgia-Pacific factors after modification.

It should be noted, however, the CAFC ruling of the Ericsson case held that the Georgia-Pacific factors should be modified appropriately according to the content of the RAND declaration actually made. In the future, it is likely that the Georgia-Pacific factors will be modified on a case-by-case basis for determining the amount of infringement damages.

## **5. Considerations in Claims for Infringement Damages Based on SEPs in the US**

### **5.1 Considerations from the Standpoint of Alleged Infringer**

When the right based on SEPs is exercised and infringement damages are claimed, the alleged infringer first needs to verify whether or not a RAND declaration has been made by the SEP holder claiming the right.

In general, the RAND declaration statuses for SEP holders can be confirmed on the website of the relevant standardization organization.<sup>14)</sup>

It should be noted that, as implied by the Innovatio case, even where the SEP holder itself has not made a RAND declaration for the SEPs, the SEPs may be handled as one for which a RAND declaration was made if the

SEPs were succeeded to from the previous holder who made a RAND declaration.

Therefore, if the SEPs based on which the right was claimed have been succeeded to by the claimant, the alleged infringer should verify whether or not a RAND declaration was made.

If the SEP holder was found to have made a RAND declaration, the alleged infringer should consider whether or not the amount of the infringement damages claimed by the SEP holder is equivalent to a royalty satisfying the RAND terms.

This is necessary because, if not, the alleged infringer may be able to allege a breach by the SEP holder of the RAND obligations.

When judging whether or not the amount of infringement damages claimed by the SEP holder is equivalent to a royalty satisfying the RAND terms, it is desirable for the alleged infringer to collect information necessary to estimate the different levels of royalty for the different numbers of SEPs.

However, it is usually difficult to identify a royalty satisfying the RAND terms from the information disclosed on the website of a standardization organization, because the patents for which a RAND declaration was made to the standardization organization may not necessarily be SEPs, and because the standardization organization may not provide information concerning recommended royalties, etc.

Therefore, the alleged infringer

should consider identifying a royalty satisfying the RAND terms by other means. For example, the alleged infringer may use a commercial report, such as Intecap reports mentioned above, if available. Otherwise, where a patent pool is provided by a patent pool agent, the alleged infringer may obtain information concerning the number of licensed SEPs in the patent pool and the corresponding royalties.

If the SEPs for which the claim was instituted can be proved to make a lower contribution to the standard than the other SEPs, the alleged infringer should consider claiming that aspect.

For example, if a commercial report, etc. assesses the degrees of contribution of different SEPs to the standard and a statement that the degree of contribution of the SEPs in suit is lower than the others, the alleged infringer may argue by using the report, etc. as evidence.

This is because if the degree of contribution is lower, the royalty satisfying the RAND terms may be determined at a lower level.

Finally, where the alleged infringer accepts the amount of infringement damages claimed by the SEP holder, the alleged infringer may argue that the cumulative royalty for the SEPs will become prohibitively high. However, such argument would not be supported unless the alleged infringer can prove that the royalty stacking problem may arise as a result of a significant increase in the amount of cumulative royalty.

## **5.2 Considerations from the Standpoint of SEP Holder**

When exercising the right based on SEPs as a SEP holder, the SEP holder should confirm the status of past RAND declarations to the standardization organization.

This is because where the SEP holder itself has made a RAND declaration to a standardization organization and owes the RAND obligations, it needs to claim infringement damages in the amount determined based on the royalty satisfying the RAND terms.

Where the SEP holder has succeeded to the SEP, it should verify whether or not a RAND declaration has been made for the SEPs before the succession.

If a RAND declaration has been made before the succession, the SEP holder may be deemed to have the RAND obligations even though the SEP holder itself has not made the RAND declaration.

An appropriate method for the SEP holder to prove that it is claiming the infringement damages in the amount determined based on the royalty satisfying the RAND terms would be to first collect information concerning the different levels of royalty for the different numbers of SEPs that are customarily imposed, and then explain that the claimed amount of infringement damages is justifiable in

light of the number of SEPs of the SEP holder.

Furthermore, if the SEPs of the SEP holder can be proved to make a higher contribution to the standard than the other SEPs, the SEP holder should consider claiming that aspect.

For example, if a commercial report, etc. assesses the degrees of contribution of different SEPs to the standard and states that the degree of contribution of the SEPs of the SEP holder is higher than the others, the SEP holder may argue by using the report, etc. as evidence.

This is because if their degree of contribution is higher, the royalty satisfying the RAND terms applied to the SEPs of the SEP holder will be able to be determined at a higher level.

## **6. Determination in Japan of the Amount of Infringement Damages in Consideration of the RAND Obligations**

### **6.1 Precedent in Japan**

In Japan, the method for determining the amount of infringement damages for SEPs subject to the RAND obligations was specified in only one case,<sup>15)</sup> which was ruled by the Intellectual Property High Court.

### **6.2 Outline of the Case**

The case considered whether or not Samsung Electronics Co., Ltd.



("Samsung") is entitled to exercise the right to claim compensation for damages against Apple Japan Limited Liability Company ("Apple") on the ground that the smartphone and the tablet device of Apple infringe the SEPs for the UMTS16) standard for which Samsung made a RAND declaration.

The Tokyo District Court held that Samsung was in breach of the good faith obligation to conduct negotiations in good faith, and thus was not permitted to exercise the right to claim compensation for damages under the SEPs against Apple because the exercise constituted an abuse of right.

As reasons for finding Samsung's breach of the good faith obligation, the court gave the fact that, during license negotiation, Samsung failed to provide Apple with specific information that proved that the license terms presented by Samsung satisfied the RAND terms.

However, in the intermediate appeal filed by Samsung against the Tokyo District Court's decision, the Intellectual Property High Court ordered Apple to pay the infringement damages to Samsung, based on its findings that the exercise of the right to claim compensation for damages under the SEPs was limited to within the scope of the royalty under the RAND terms and therefore it did not constitute an abuse of right.

### **6.3 Determination of the Amount of Infringement Damages**

The Intellectual Property High Court recognized that when determining the amount of infringement damages satisfying the RAND terms, measures to suppress the excessive accumulation of royalties for SEPs should be taken. Based on this recognition, the court first determined the royalty rates for the smartphone and the tablet device by using the formula shown below, and then determined the amount of infringement damages by multiplying the total sales amounts of the smartphone and the tablet device by the respective royalty rates.

$$\text{(Royalty rate)} = \text{(a)} * \text{(b)} * \text{(c)}$$

(a) Upper limit of the cumulative royalty rate

(b) Contribution of the subject SEPs to the UMTS standard

(c) Contribution of the UMTS standard to the sales of the infringing product

For (a) Upper limit of the cumulative royalty rate, a rate of 5% was used, on the grounds that the patent pool for W-CDMA17), which was established by the holders of the SEPs in the UMTS standard, employed a system to limit the maximum cumulative royalty rate for the SEPs to 5% and other factors.

For (b) Contribution of the subject SEPs to the UMTS standard, the court used the figure obtained by dividing the number of the subject SEPs by the total number of SEPs, on the grounds that

there is no particular evidence to judge that the contribution of the subject SEPs was higher than the other SEPs.

For the number of SEPs in the UMTS standard, a Fairfield Report was adopted as evidence and the number was determined to be 529.

In order to specify the royalty rate in compliance with the RAND terms, the court recognized that, among the total sales of the infringing product, only the portion attained due to the compliance with the UMTS standard should be used as the basis for determining the amount of infringement damages. Based on this recognition, the court multiplied (a) and (b) by (c).

For (c), the court recognized that the degree of contribution of the UMTS standard to the sales of the tablet device was lower than that to the sales of the smartphone because the tablet device, when in use, did not necessarily need the mobile communication function implemented by the UMTS standard. Based on this recognition, the court specified different degrees of contribution for the tablet device and the smartphone, based on the selling prices of the baseband chips, the feature phones, etc. used on these products.

## **7. Comparison between the Methods Used by US and Japanese Courts for Determining the Amount of Infringement Damages in Consideration of the RAND Obligations**

The Intellectual Property High Court in Japan first specified the upper limit of the cumulative royalty rate for all the SEPs included in the standard. It then determined the royalty rate satisfying the RAND terms by first allocating a portion of the upper limit cumulative royalty rate to the subject SEPs based on their contribution to the standard and then multiplying the resulting figure by the contribution of the standard to the sales of the infringing product.

On the other hand, in the Microsoft case and the Innovatio case, the US courts first specified the cumulative royalty, which included those for the other SEPs in the standard, and determined the royalty rate satisfying the RAND terms by allocating a portion of the cumulative royalty to the SEPs in suit based on their contribution to the standard.

In other words, the methods for determining the amount of infringement damages used by the Japanese and US courts both determine the royalty rate and the royalty for the infringing product by first specifying the upper limit of the cumulative royalty rate and the cumulative royalty, and then allocating these cumulative figures to the subject SEPs based on their contribution to the standard.

This shared approach between the US and Japanese courts reflects the common recognition by these courts that, when the RAND obligations are

taken into consideration, a determination method that will at least not cause the royalty stacking problem to arise should be adopted.

There is only one precedent in Japan as described above. However, considering the common recognition between the US and Japanese courts, the considerations in claims for infringement damages based on SEPs in the United States discussed in Section 5 provide a useful reference when dealing with cases claiming damages in Japan.

## 8. Conclusion

Among recent precedents in the US, there are no cases where an injunction demand against an alleged infringer under SEPs for which a RAND declaration had been made was approved<sup>18</sup>). Moreover, within the scope of the present research, it can be seen that the amounts of infringement damages awarded under SEPs were specified within the range satisfying the RAND terms.

There do exist cases in which, despite the plaintiff being a SEP holder, the amount of infringement damages was determined without consideration of the RAND obligations. However, in light of the fact that an entity intending to make a technical proposal to a standardization organization is generally requested to make a RAND declaration, such cases are rather exceptional.

Therefore, if the recent trend in judicial precedents continues, users of standards are in general able to utilize standards without worry. From the standpoint of SEP holders, however, license negotiations with users of the standard may become harder. There may indeed be more situations where a SEP holder cannot avoid filing with a court a claim for compensation for damages in order to obtain a proper amount of infringement damages.

The number of precedents of cases claiming damages under SEPs is still small, even including those in the US. In addition, only a district court specified a method for determining the amount of infringement damages. Considering these facts, CAFC or other courts are expected to make specific modifications to this method in the future.

Thus, both users of standards and SEP holders should continue studying the latest precedents in various countries, mainly in the US, so as to keep up with changing trends in judicial decisions by courts.

Finally, we sincerely hope this paper will provide useful information to Japanese companies doing business in the US.

Notes:

- 1) “事業戦略への上手な国際標準化活用のおすすめ (Encouragement of Effective Utilization of International Standardization in Business Strategies)” by 事業戦略と標準化

- 経済性研究会 (Society for Business Strategy and Standardization Cost Efficiency), (First Edition), (March 2007)
- 2) “標準規格必須特許の権利行使に関する調査研究 (II) (Report on Research and Study Concerning Exercise of Rights under Standard Essential Patents (II)), Institute of Intellectual Property (March 2013)
  - 3) 35 U.S.C. §284
  - 4) Panduit Corporation v. Stahlin Bros. Fibre Works, Inc., 298 F. Supp. 435 (W.D. Mich. 1969)
  - 5) Georgia-Pacific Corp. v. United States Plywood-Champion Papers, Inc. 318 F. Supp. 1116 (S. D.N.Y. 1970)
  - 6) Microsoft Corp. v. Motorola, Inc., 696 F.3d 872 (9th Cir. 2012)
  - 7) Microsoft Corp. v. Motorola, Inc., 2:10-cv-01823-JLR (W.D. Wash. Apr. 25, 2013)
  - 8) Ericsson Inc. v. D-Link Sys., Inc., No. 10-CV-473 (E.D. Tex. Aug. 6, 2013)
  - 9) Ericsson Inc. v. D-Link Sys., Inc., Nos. 2013-1625, -1631, -1632, -1633 (Fed. Cir. Dec. 4, 2014)
  - 10) Commonwealth Scientific & Indus. Research Org. v. Cisco Systems, Inc., No. 6: 11-cv-343 (E.D. Tex. July 23, 2014)
  - 11) <http://www.ieee802.org/11/> (referred on Feb. 2, 2015)
  - 12) In re Innovatio IP Ventures, LLC Patent Litigation, 956 F. Supp. 2d 925 (N.D. Ill. 2013)
  - 13) <http://www.itu.int/rec/T-REC-H.264> (referred on Feb. 2, 2015)
  - 14) [http://standards.ieee.org/about/sasb/patcom/pat802\\_11.html](http://standards.ieee.org/about/sasb/patcom/pat802_11.html) (referred on Feb. 2, 2015)
  - 15) Intellectual Property High Court 2013 (Ne) No. 10043 case decision (rendered on May 16, 2014)
  - 16) <http://www.3gpp.org/technologies/keywords/acronyms/103-umts> (referred on Feb. 2, 2015)
  - 17) <http://www.3gpp.org/technologies/keywords/acronyms/104-w-cdma> (referred on Feb. 2, 2015)
  - 18) “知財管理” (IP Management), Vol. 64, No. 7, pp. 1036-1050 (2014)

(Manuscript received on March 9, 2015)