

Contributory Patent Infringement in Korea

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I. INTRODUCTION

The Patent Act of Korea has been in force for a relatively short time.¹ Partly due to a lack of experience, courts have sometimes failed, in the course of interpreting provisions of the Patent Act, to balance the interests of the patentee and the interests of the general public.² On the one hand, the Supreme Court of Korea has shown a tendency to interpret narrowly the scope of patent protection, confining it to the specific examples or preferred embodiments given in a patent specification.³ In addition, the Supreme Court generally limits damages to a "reasonable" royalty only and, accordingly, most litigation is terminated one way or another at the preliminary injunction stage.⁴ Such restrictive claim interpretation and limited damages decrease the incentives of patentees to invent and may encourage imitating or inventing around the patented invention. On the other hand, in an alleged patent infringement case where the patented invention is arguably identical with the prior art and thus the patent is invalid, the courts currently recognize patent infringement

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1. The Republic of Korea's Patent Act was first enacted by the United States Military Administration in 1946. Military Administration Decree No. 91 of 1946 (S. Korea).

2. Courts have also failed in other areas of law because the Judiciary of Korea has had little experience with modern western legal systems. See Chang Soo Yang, *The Judiciary In Contemporary Society: Korea*, 25 CASE W. RES. J. INT'L L. 303 (1993).

3. See *Merck & Co., Inc. v. Daewoong Pharmaceutical Co., Ltd.*, Supreme Court Case No. 91 Hu 1809 (June 23, 1992); *Bayer A.G. v. Cheil Sugar Co., Ltd.*, Supreme Court Case No. 90 Hu 1499 (Nov. 26, 1991); see also C. Leon Kim, *Transition From Central To Peripheral Definition Patent Claim Interpretation System In Korea*, 77 J. PAT. & TRADEMARK OFF. SOC'Y 401 (1995).

4. James A. Forstner, *Patent Litigation In Japan, China and Korea*, 366 PLI/Pat 13, 15-16 (1993).

under the premise that the patent is valid until its invalidity is finalized by an administrative patent invalidity adjudication.⁵ Additionally, in interpreting article 127 of the Patent Act,⁶ which provides for contributory infringement of patents, the Supreme Court has applied contributory infringement too broadly, over-protecting the interests of patent holders and greatly infringing upon the interests of the general public, including consumers and potential inventors.

In *Samsung Electronics, Inc. v. Sung-Kyu Cho*,⁷ for example, the Supreme Court failed to examine the relationship between direct infringement and contributory infringement and instead found contributory infringement by relying solely upon a dubious interpretation of the literal language of the Patent Act. This interpretation resulted in over-protection of the patentee's interests and greatly restricted both the opportunity for consumers to purchase replaceable parts and the opportunity for potential inventors to conduct research and development. Part II of this Article will first introduce the facts and decisions by the Seoul High Court and the Supreme Court in the above case. Part III will examine the object and

5. The interested person or examiner may petition to the Patent Trial Institute of the Korean Industrial Property Office (KIPO) for the invalidation of a patent. Patent Act, Law No. 950 of 1961, art. 133 (1) available at <<http://www.kipo.go.kr/ehtml/eInfIndex08.html>>. Appeals against an adjudication rendered by the Patent Trial Institute may be raised to the Patent Court, which has an intermediate appellate jurisdiction over disputes concerning patent invalidity, patent right scope, etc. *Id.* art. 186(1). An adjudication rendered by the Patent Trial Institute may be finalized, if there is an appeal, by the Supreme Court. *Id.* art. 188.

6. Article 127 of the Patent Act of Korea states:

The following acts shall be deemed to be infringements on a patent right or an exclusive license:

(1) in the case of an invention of a product, acts or making, assigning, leasing, importing, or offering for assignment or lease articles used exclusively for producing such products, and

(2) in the case of an invention of process, acts of making, assigning, leasing, importing, or offering for assignment or lease articles used exclusively for working such a process.

Id. art. 127.

7. Supreme Court Case No. 96 Ma 365 (Nov. 27, 1996).

purpose of the contributory infringement doctrine, the question whether direct infringement should be a prerequisite for a finding of contributory infringement, and the relationship between contributory infringement and criminal patent infringement.

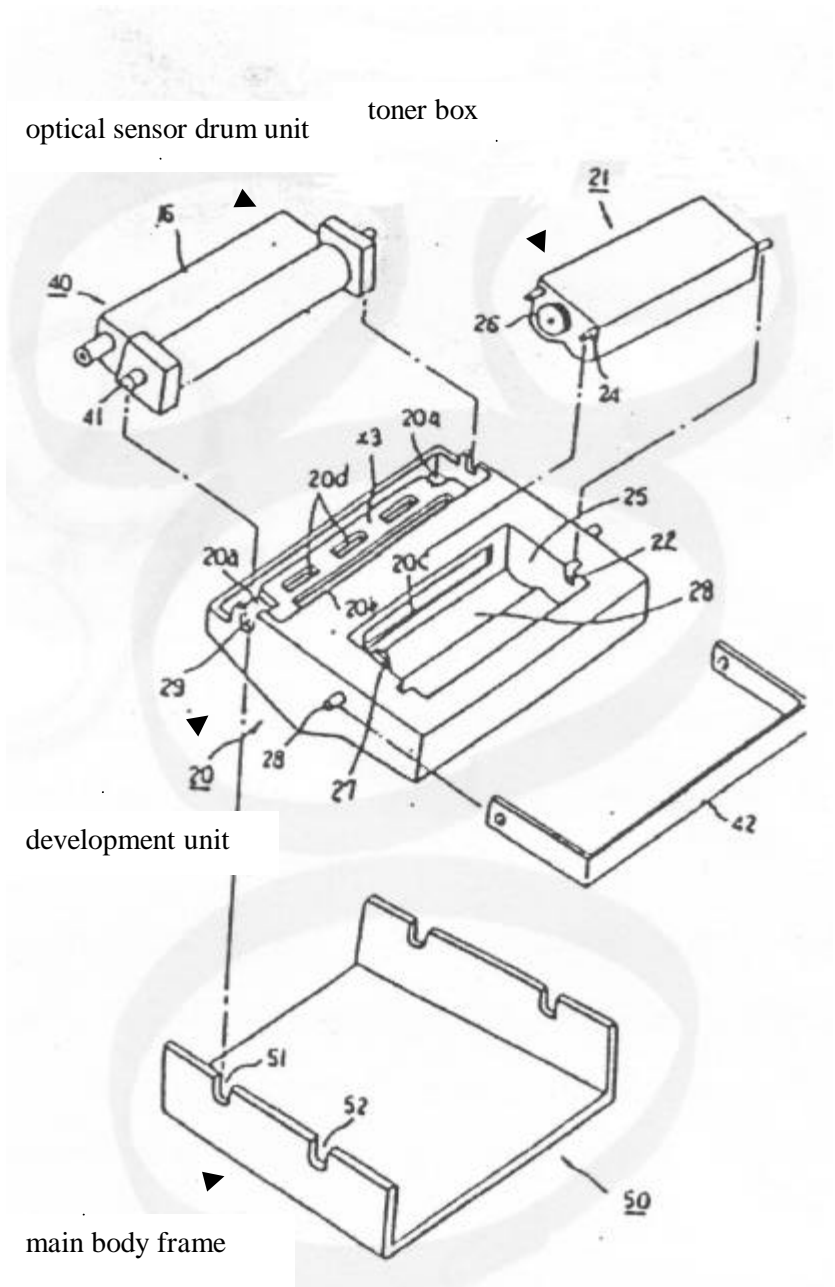
II. *SAMSUNG ELECTRONICS, INC. v. SUNG-KYU CHO*

A. *Summary of Facts*

The plaintiff, Samsung Electronics, Inc., is a company that produces and sells laser printers based on a patented invention of an electronic-photograph method image recorder. Paragraph one of the plaintiff's patent claim concerns the invention of this image recorder.⁸ The recorder consists of: 1) light-sensor drum unit that combines a light-sensor drum, cleaning parts, and an electric charge mechanism into a single unit; 2) a development unit, consisting of a drum section for the receipt of the light-sensor drum unit and a toner section making possible the detachment of the toner box; and, 3) a main body frame with guide grooves for positioning the light-sensor drum unit and the development unit. The claimed invention separates the development unit from the light-sensor drum unit and the toner box, which are replaceable parts. This arrangement results in greater economy and allows for easier handling by the user.

8. Register 75846, Patent Office (July 27, 1997) (S. Korea).

DRAWING OF PLAINTIFF'S ELECTRONIC-PHOTOGRAPH METHOD
IMAGE RECORDER



The plaintiff's patented product, the laser printer, has an average life span of approximately five years or approximately 300,000 print cycles. The primary toner cartridge, mounted in and sold with the patented laser printer in question, prints approximately 1,500 times. Replacement toner cartridges are sold individually and print approximately 3,000 times each. Therefore, during the life span of the plaintiff's patented laser printer approximately 100 toner cartridges will be used. Accordingly, purchasers of the applicant's patented laser printer must repeatedly purchase an identical toner cartridge, which will form a demand, and subsequently a market, for the toner cartridge.

The respondent, to meet this new demand, produced a toner cartridge of identical function with the toner cartridge of plaintiff's patented laser printer. The respondent also included a product manual identical to the plaintiff's manual. The plaintiff applied for a preliminary injunction of the infringing acts, alleging the respondent's production and sale of the toner cartridge violated the Unfair Competition Prevention Act and amounted to a contributory infringement of the plaintiff's patent. The plaintiff further alleged that the respondent's product manual constituted copyright infringement.

B. Judgement of Seoul High Court⁹

In response to the plaintiff's allegations, the Seoul High Court came to a number of conclusions in *Samsung*. First, the court recognized that the toner cartridge produced by the plaintiff did not achieve widespread recognition and thus did not violate the Unfair Competition Prevention Act ("UCPA"). Second, the court found that the toner cartridge was a replaceable part, which could not result in contributory infringement. Third, the court found an infringement of copyright because the respondent used a product manual identical to the plaintiff's product manual.

9. Seoul High Court Case No. 95 Ra 135 (Feb. 22, 1996) (The Seoul High Court is an intermediate appellate court with appellate jurisdiction over judgements rendered by trial courts, such as district courts. Final appeals, appeals against judgements rendered by High Courts, go to the Supreme Court, the highest judicial tribunal of the nation.).

1. UCPA Violation

For two years during the three-year period that the applicant produced and sold the toner cartridge, there was a mark of origin on the printer only.¹⁰ Not only was there no mark of origin on the toner cartridge itself, the applicant sold development devices mounting like toner cartridges to Xerox Korea and Sambo Computers, with the ordering company's trademark attached.¹¹ Therefore, the court recognized that it could not be said that the toner cartridge produced by the applicant achieved widespread recognition among consumers as a unique mark of origin.¹²

2. Contributory Infringement of Patent

Under the Patent Act, "in the case of an invention of a product, acts of making, assigning, leasing, importing, or offering for assignment or lease articles used exclusively for producing such products" are an infringement of the patent.¹³ The toner cartridge for the applicant's patented laser printer must be replaced approximately one hundred times during the printer's life span. Therefore, rather than being an object required for the "production" of the patented invention, the toner cartridge is only a replaceable part required for the purchaser's "use." Although the respondent's toner cartridge cannot be used in any printer other than the patented laser printer, this does not influence its nature as a replaceable part. Accordingly, the Seoul High Court did not find any contributory infringement of the patent.¹⁴

3. Infringement of Copyright

The plaintiff's product manual uses words and pictures to explain clearly how safely to replace the toner cartridge and amounts to a

10. Seoul High Court Case No. 95 Ra 135 (Feb. 22, 1996).

11. *Id.*

12. *Id.*

13. Patent Act, Law No. 950 of 1961, art. 127 (1) available at <<http://www.kipo.go.kr/ehhtml/eInfIndex08.html>>.

14. Seoul High Court Case No. 95 Ra 135 (Feb. 22, 1996).

copyrighted work. Therefore, the respondent's identical reproduction and use of the manual constitutes copyright infringement.

C. Summary of Supreme Court Judgement

On appeal, the Supreme Court reviewed the findings of the Seoul High Court. The Supreme Court did not rule on the copyright infringement claim, but did hold that no violation of the UCPA occurred. Unlike the Seoul High Court, the Supreme Court did find contributory infringement of the plaintiff's patent.

1. UCPA Violation

Generally, when a specific trade-dress of a product is used over a long period of time or there is continuous advertisement and publicity so that consumers associate it with a specific quality or origin of a product, then it secondarily possesses the capacity of differentiation from other products. Only in this category of cases does the trade-dress of the product constitute a "mark[] identical or similar to another person's . . . package of goods" as required under the UCPA.¹⁵ However, there was no indication that consumers associated the plaintiff's toner cartridge as individualized to the extent of being a mark of origin.¹⁶

2. Contributory Patent Infringement

Under the Patent Act, "in the case of an invention of a product, acts of making, assigning, leasing, importing, or offering for assignment or lease articles used exclusively for producing such products" are an infringement of the patent.¹⁷ While the toner cartridge for the plaintiff's patented laser printer is a replaceable part, which requires frequent replacement, it is an essential part of the patented invention and is not used for any other purpose. Generally, it

15. Unfair Competition Prevention Act, Law No. 911 of 1961, art. 2(1)(a) *available at* <<http://www.kipo.go.kr/ehhtml/eInfIndex08.html>>.

16. Supreme Court Case No. 96 Ma 365 (Nov. 27, 1996).

17. Patent Act, Law No. 950 of 1961, art. 127 (1) *available at* <<http://www.kipo.go.kr/ehhtml/eInfIndex08.html>>.

is not a widely available object and with the purchase of the laser printer, replacement of the toner cartridge was foreseeable. Furthermore, the plaintiff (patentee) separately manufactured and sold such components. Therefore, the Supreme Court held that the toner cartridge is a thing “used only for the production of such thing,” and the respondent’s production of such toner cartridges, without the consent of the plaintiff, constitutes a contributory infringement of the plaintiff patent.¹⁸

III. POLICY GOAL OF THE CONTRIBUTORY INFRINGEMENT CLAUSE

The Republic of Korea’s Patent Act contains no requisite that recognizes contributory infringement only when components have been supplied to persons not licensed to use the patented inventory nor does it contain any subjective requisites concerning the contributory infringer’s knowledge.¹⁹ The Patent Act merely defines contributory infringement as the manufacture of articles used for producing a patented product or used in the exploitation of a patented process.²⁰ Thus, it is difficult to determine solely by textual interpretation whether contributory infringement under the Republic of Korea’s Patent Act requires direct infringement. For that reason, one must examine the development of contributory infringement in other countries. By analyzing the policy goal of the contributory infringement provision of the Republic of Korea’s Patent Act, one may gain insight into the relationship between contributory and direct infringement under the Patent Act and the difference between direct infringement and “repair” by the purchaser or a patented product.

In the United States the law of contributory infringement, first recognized as a tort in the United States in 1871, developed in the

18. Supreme Court Case No. 96 Ma 365 (Nov. 27, 1996).

19. In comparison, European statutes recognize contributory infringement only when components have been supplied to persons without a license. *See, e.g.*, Community Patent Convention § 26; § 60 (20 Patents Act, 1977, ch. 37 (Eng.)); § 10 Patentgesetz (F.R.G.). Additionally, subjective requisites are provided for not only in European legislatures but also in the United States. *See* 35 U.S.C. § 271(c) (1994) (establishing “knowing” requirement for contributory infringement).

20. *See* Patent Act, Law No. 950 of 1961, art. 127 (1) *available at* <<http://www.kipo.go.kr/ehhtml/eInfIndex08.html>>.

case law until it was eventually codified by the patent statute²¹ Section 271(b) of the Patent Act declares that a person who actively induces the infringement of another's patent is jointly responsible with the direct infringer.²² Prior to codification, however, the case law further extended the limits of contributory infringement and § 271(c) of the current federal patent statute likewise includes elements beyond active inducement.²³

Many other countries do not require active inducement but instead merely require proof of another's actual direct infringement or a substantial possibility of direct infringement.²⁴ Often, these countries strictly required the contributory infringer to know that the components sold were to be used for patent infringement. Recent statutes, however, only require awareness that the components were made for the exploitation of the patented invention. By contrast, some countries like the Republic of Korea or Japan do not require any knowledge of the direct infringement.²⁵ These countries recognize contributory infringement from the mere production of components that could only be used to produce a patented article.²⁶

Generally, a patent is infringed by the manufacture and sale of products that fall within the literal meaning of the patent claim. In the case of patented inventions consisting of two or more components, however, if the components in question are produced and sold to a third party so that the purchaser of the components can assemble the components to produce the patented invention, it is the assembly and production that directly infringes the patent. However, if assemblers are numerous and operate on a small-scale or the infringement is done in secret by an individual, patent protection would be ineffective unless legal remedies also existed against the producer of the components. The purpose of the law of contributory infringement

21. See *Wallace v. Holmes*, 29 F. Cas. 74 (C.C.D. Conn. 1871) (No. 17,100), noted in DONALD S. CHISUM, CHISUM ON PATENTS § 17.02 (1998).

22. 35 U.S.C. § 271(b).

23. *Id.* § 271(c).

24. See, e.g., *Aro Manufacturing Co. v. Convertible Top Replacement Co.*, 377 U.S. 476 (1961).

25. See Tokkyo Ho [Patent Law], Law No. 121 of 1959, art. 101 (Japan); Patent Act, Law No. 950 of 1961, art. 127 (1) (S. Korea) available at <<http://www.kipo.go.kr/ehhtml/eInfIndex08.html>>.

26. *Id.*

is to secure the effectiveness of patents by cutting off the source of direct infringement and preventing any possibility thereof. The law of contributory infringement is recognized as an effective method of patent protection since it prevents direct infringements that might otherwise be difficult to defect. The law of contributory infringement, however, strengthens the protection of patents; it does not expand their scope or expand the monopoly of a patent owner to all unpatented components.

IV. RELATIONSHIP BETWEEN CONTRIBUTORY INFRINGEMENT AND DIRECT INFRINGEMENT

A. Contributory Infringement of Patents and the Scope of Patent Rights

Is the existence or substantial possibility of direct infringement a prerequisite or *sine qua non* for the finding of contributory infringement? The policy and function of the law of contributory infringement indicate that a substantial possibility of direct infringement should be a prerequisite. If the production and sale of a specific component is regarded as contributory infringement even though there is no direct infringement or substantial possibility thereof, then the component will come within the scope of the patent right, even though the component does not fall within the scope of the patent claims. This results in an unjust expansion of the patent claims. Moreover, considering the production and sale of components that are not within the scope of patent claims as contributory patent infringement and not requiring direct infringement arguably conflicts with article 97 of the Patent Act, which states that “[t]he scope of protection conferred by a patented invention shall be determined by the subject matters described in the claims.”²⁷ Generally, patent infringement occurs when the invention, within the literal meaning of the patent claim, is exploited as a whole, and the exploitation of only part of the patented invention, such as components or replaceable parts, does not constitute patent infringement. The so-called “doctrine

27. Patent Act, Law No. 950 of 1961, art. 97 (S. Korea) available at <<http://www.kipo.go.kr/ehhtml/eInfIndex08.html>>.

of equivalents,” of course, might be employed to hold that when certain parts of a patented invention are so important and fundamental, the exploitation of those parts is the equivalent of exploiting the entire patent and can be regarded as patent infringement.²⁸ Adopting the doctrine of equivalents, however, implies recognition of direct infringement, without relying upon the law of contributory infringement.

The Supreme Court majority opinion in *Samsung* does not mention the relationship between contributory infringement and direct infringement.²⁹ The Court regards the contributory infringement provision as a swift, preventive remedy for the patent holder and considers an act to constitute infringement whether or not it contributes to a direct infringement.³⁰ Other countries, including the United States, however, deem direct infringement as a prerequisite for contributory infringement.³¹ Not requiring the substantial probability of direct infringement leads to the unjust result of extending patent rights beyond the scope of the patent claims. In comparison, if the substantial possibility of direct infringement is made a prerequisite to find contributory infringement, this would not obstruct the provision of a swift, preventive remedy. In this regard, the majority opinion contains a discrepancy in logic. Furthermore, article 127 of the Patent Act would allow an interpretation that requires direct infringement.³²

Article 127 requires the component to be used “only for the production of such [patented machine],” and “production,” as used in this context, arguably means direct exploitation of the patented invention.³³ Thus, under article 127 the exploitation of the patented invention or a direct infringement of the patent by the purchaser of

28. It is unclear whether the Supreme Court of Korea has adopted the doctrine of equivalents under the Patent Act. *See* Kim, *supra* note 3, at 413. *But see* Warner-Jenkinson Co. v. Hilton Davis Chemical Co., 520 U.S. 17, 29 (1997) (confirming that the United States doctrine of equivalents must be applied to individual elements of the claim, not the invention as a whole).

29. Supreme Court Case No. 96 Ma. 365 (Nov. 27, 1996).

30. *See generally* YOUNG-SIK SONG ET AL., INTELLECTUAL PROPERTY LAW (1996).

31. *See* CHISUM, *supra* note 21, § 17.01.

32. Patent Act, Law No. 950 of 1961, art. 127 (S. Korea) *available at* <<http://www.kipo.go.kr/ehhtml/eInfIndex08.html>>.

33. *Id.*

the component can be interpreted to be a prerequisite. A finding of contributory infringement under the Patent Act should require the existence or substantial probability of direct infringement as a prerequisite, because the legislative purpose of the contributory infringement clause is to secure the effectiveness of the patent by cutting off the contributory infringement that is the source of direct patent infringement.

Article 127 of the Patent Act anticipates an instance when a specific component is used solely in the invention or the process. Patentee A and B produce the component and sell it to companies X, Y, and Z; companies X, Y, and Z use the component and exploit A's invention or process without A's permission, thereby directly infringing upon A's patent right. B, by producing and selling the component, makes such direct infringement possible, and, therefore, B incurs responsibility for contributory infringement.³⁴ When legitimate consumers purchase the component and their use cannot be regarded as direct infringement, however, then as in *Samsung* the production of the component should not be regarded as contributory infringement.³⁵

B. Relationship Between Contributory and Criminal Patent Infringement

Whether contributory infringement requires direct infringement is closely related to the question of whether contributory infringement constitutes a crime under the Patent Act.³⁶ In a criminal judgement the Supreme Court found contributory infringement to be preliminary to direct infringement and decided that contributory infringement did not come within the criminal provision penalizing patent infringement.³⁷ If, however, one assumes that *Samsung* did not require direct infringement in order to find contributory infringement,

34. See, e.g., Seoul District Court Case No. 90 Gahab 12107 (Oct. 22, 1993).

35. Supreme Court Case No. 96 Ma. 365 (Nov. 27, 1996).

36. See Doo-Hyung Doh, *Punishability of Contributory Infringements of Patent Rights*, 291 JUD. CASE MONTHLY 15 (1994) (S. Korea).

37. Supreme Court Case No. 92 Do 3350 (Feb. 23, 1993). Cf. Seoul District Court Case No. 90 Gahab 12107 (Oct. 22, 1993) (ruling that only the production of components used in the exploitation of patented inventions and processes comes within contributory infringement).

this contradicts the previously cited criminal judgement. The *Samsung* Court does not examine the possibility that direct infringement is required to find contributory infringement, instead, it decides infringement based solely on its interpretation of whether the component is used “only for the production of [the patented machine].”³⁸ Consequently, the *Samsung* Court interprets the contributory infringement provision as a law that extends patent rights to unpatented components. If this is the case, should not contributory infringement be a separate, independent patent infringement and, therefore, come under the criminal provision penalizing patent infringement? The contributory infringement provision, however, is not a separate patent infringement provision but is merely a provision that seeks to secure the effectiveness of patents by imposing civil responsibility on preliminary or assisting actions that create the possibility of direct infringement. As the above criminal judgement indicates, contributory infringement does not necessarily come within the criminal provision punishing patent infringement.³⁹

C. Substantial Possibility of Direct Infringement

Contributory infringement of patents, far from being a logically inevitable cause of direct infringement, may or may not create a substantial possibility of direct infringement according to the specifics of each case. One must ask whether a separate policy need actually exist for recognizing contributory infringement of patents without the pre-requisite of direct infringement. As I have shown, contributory infringement without the prerequisite of direct

38. Patent Act, Law No. 950 of 1961, art. 127 (S. Korea) available at <<http://www.kipo.go.kr/ehtml/eInffIndex08.html>>.

39. Under article 32 of the Criminal Act of Korea, however, if the contributory infringement was of an assisting nature to direct infringement, then knowingly aiding the principal offender committing a crime is punishable as an accessory to the crime. Criminal Act, art. 32 (1997) (S. Korea). Consequently, if in actuality direct infringement occurred and the subjective requisites of accessory liability were fulfilled, the contributory infringer could be punished as an accessory to the crime of patent infringement. The contributory infringement provision in the Republic of Korea's Patent Act, unlike other national statutes, does not provide for subjective requisites, so it cannot be said that all contributory infringers are accessories to the crime of patent infringement.

infringement results in unjustly expanding the scope of the patent. Expanding the scope of the patent in this way has the effect of extending the patent to components that were not examined for novelty or non-obviousness. This threatens the very foundations of the patent system and, in view of its policy goals, should not be permitted. If a broad interpretation of contributory infringement, which results in extending patent rights to expendable parts of a patented invention, is recognized, then a separate patent claim concerning the expendable part in question should be required and a separate examination for novelty and non-obviousness should be undertaken for the separate patent claim. In contrast, if the expendable parts are part of the prior art, without novelty or non-obviousness, and the law of contributory infringement, without the prerequisite of direct infringement, causes the production of expendable parts to be regarded as a patent infringement, then a basic principle of patent law, that the prior art is not protected, would be completely destroyed.

If direct infringement is a prerequisite for contributory infringement, this does not mean that actual direct infringement must occur; the substantial possibility of direct infringement is sufficient. However, because purchasers of patented products have the right to conduct repairs or replace components, the sale of components to such consumers does not come under contributory infringement. Contributory infringement may exist, however, in cases where components are sold to persons who do not have a right to use the invention, and thus have no right to repair, or where components are sold to a person who has no license to make the invention and the patented product's produced or reconstructed, rather than simply repaired. Since a portion of the components contribute to the direct infringement, the fact that most of the components might be used for legal repairs or replacement by purchasers cannot provide escape for contributory infringement liability. Contributory infringement should not be based on a mere remote possibility of direct infringement, but actual direct infringement should not be required for contributory infringement to exist. If one can prove that a "substantial possibility" of direct infringement exists, contributory infringement also exists.

To be sure, proving a substantial possibility of direct infringement exists may be quite difficult. At the same time, allowing patentees to

exercise a right to injunctive relief based only on the remote possibility of direct infringement would be highly unjust. This would prevent competing firms from selling components and, as a result, interfere with the legitimate demands for repair parts by a large number of legal licensees, including purchasers of the patented product. Therefore, liability for contributory infringement should be limited to cases where the substantial possibility, not the remote possibility, of direct infringement exists.

D. Repair and Component Replacement by the Purchaser

A lawful purchaser of a patented product can repair or replace damaged or worn-out components of the product without infringing upon the patent.⁴⁰ In principle, the patentee has the exclusive right to any exploitation of the patented product, such as its production, use, or transfer, but the “exhaustion of rights” doctrine prohibits the patentee from exercising patent rights over subsequent transfers of a patented product transferred originally by the patentee. Therefore, while the commercial assembly or production of a patented invention by a purchaser of a patented product can be a patent infringement, replacing or repairing damaged components during the life-span of the patented product does not come within the scope of patent rights. From this viewpoint, the purchasers of a patented invention possess a “right to repair.”⁴¹

The difficulty is in setting a standard to distinguish component replacement coming within the right to repair and component replacement constituting an infringing reconstruction of the patented product or production of a new patented product. The purpose of the Patent Act is to foster the development of science and technology by giving substantial incentives to inventors, which is achieved by

40. DUK-KYOO CHOI, PATENT LAW 709-10, 788 (1996) (S. Korea). *See also* YOUNG-SHIK SONG ET AL., *supra* note 30, at 290. In *Samsung* the Court also regards it as possible to recognize repair activities as legal actions not coming within patent infringement, in light of the reconciliation of the interests of the persons concerned. (cite *Samsung*)

41. The view also exists that component replacement does not come within patent infringement because legal purchasers of a patented invention receive an implied license to component replacement from the patentee. *See, e.g.,* *Universal Electronics Inc. v. Zenith Electronics Corp.*, 62 F.3d 1397 (Fed. Cir. 1995).

guaranteeing market demand for patented inventions and protecting the economic interests of patentees against infringement. Thus, if the purchaser of a patented product, the useful life of which has come to an end or the economic value of which depleted, effectively reconstructs the product or produces another by replacing all important components, this must be considered a patent infringement. In contrast, excessive protection or expansion of patent rights beyond the scope of the patent claims actually hinders the development of science and technology by unjustly limiting competition,⁴² and component replacement not coming within such reconstruction must be permitted. The distinction between legal repair or replacement and reconstruction or production with regard to patent infringement must be upon a comparison of the life-span of the patented invention, the life-span of the replaceable component, and the economic value of the patented invention at the time of component replacement.

The contributory infringement provision of the Republic of Korea's Patent Act is not limited to cases where components have been supplied to persons unlicensed to make, use, or sell the patented invention, nor does it require knowledge of the contributory infringer.⁴³ The Patent Act defines contributory infringement as the production of objects used in the exploitation of a patented invention or process.⁴⁴ Therefore, a strict interpretation of the concepts of "production" or "exploitation" is necessary. The purchase and replacement of a component expected to be replaced several times comes within simple parts replacement or acts of repair and does not amount to the reconstruction or production of patented products. Therefore, the production and sale of such components should not be seen as the production of objects used "solely in the exploitation of the patented product."⁴⁵

In a case like *Samsung*, the making, selling, or replacing the toner cartridge more closely resembles the conventional concept of "repair" rather than "reconstruction." This is especially true since the toner

42. Patent Act, Law No. 950 of 1961, art. 1 (S. Korea) available at <<http://www.kipo.go.kr/ehhtml/eInfIndex08.html>>.

43. *Id.* art.127.

44. *Id.*

45. *Id.*

cartridge has a relatively short anticipated useful life compared to the patented invention as a whole. Simple replacement of the toner cartridge is closer to a repair than a reconstruction. There is also objective evidence that the plaintiff in *Samsung* intended consumers to replace the toner cartridge, and the plaintiff published instructions on how to replace the cartridges, which there must have been a substantial market.⁴⁶

V. HARMONIZATION WITH ANTI-TRUST LAW

Interpretation of the contributory infringement provision may exert considerable influence upon the scope of patent rights, which makes it necessary to examine whether such an interpretation can be reconciled with the Republic of Korea's anti-trust law, the Monopoly Regulation and Fair Trade Act (MRFTA).⁴⁷ If contributory infringement is determined in relation to direct infringement and patent rights are recognized only to the extent of the patent claims, then exercise of the patent does not come within application of the MRFTA.⁴⁸ However, holding contributory infringement not to require the existence or possibility of direct infringement, which would recognize patent rights over non-patented components and extend the scope of patent rights, may conflict with the MRFTA.⁴⁹ To elaborate, if contributory infringement is widely recognized without considering the legality of component replacement by purchasers, then purchasers must rely on the patentee to purchase components, competitive operations by component manufacturers would be prohibited, and competition in the component market would be limited or banned. These effects create doubts as to whether such widespread limitations on competition are actually justifiable or desirable, and it is thus necessary to examine whether this interpretation of contributory patent infringement violates the MRFTA.

There is no general standard to determine whether an abuse of patent rights is a violation of the MRFTA, but the standard applied to

46. *Sandvik Aktiebolag v. E.J. Co.*, 121 F.3d 669 (Fed. Cir. 1997) (noting the difference between infringing reconstruction and permissible repair).

47. Monopoly Regulation and Fair Trade Act (1997) (S. Korea).

48. *Id.* art. 59.

49. *Id.*

unfair trade practices in international contracts can be applied *mutatis mutandis* to the abuse of patent rights between domestic business persons. Article 32 of the MRFT prohibits unfair trade practices in international contracts, and the Fair Trade Commission has announced the “Types and Standards of Unfair Trade actions in International Contracts” pursuant to article 32.⁵⁰ The Fair Trade Commission states that when the licensor of intangible property forces the licensee to purchase components of the contracted product from the licensor, or a person designated by the licensor, or forces the purchase of technology unrelated to the contracted technology, this probably constitutes an unfair trade practice.⁵¹ Additionally, when the patentee, in concluding a licensing agreement, inserts a provision within the agreement forcing the licensee to purchase certain components from the patentee or a person designated by the patentee, such contract provisions are deemed “tie-in” provisions. Unless the components in question are necessary for maintaining the quality of the patented invention, it is highly likely that such tie-in provisions are unfair trade practices, contravening the MRFT.⁵² In view of the aforementioned Fair Trade Commission’s announcement, tie-in provisions inserted in licensing agreements between domestic business persons will also be regarded as violations of the MRFT.⁵³ Thus, if the production and sale of components not the object of patent rights constitutes contributory infringement, then the assertion of such rights can be seen as an abuse of patent rights and consequently a violation of the MRFT since it results in forced tie-in sales and unjustly limits competition in the component market.⁵⁴

50. *Id.* art. 32.

51. TYPES AND STANDARDS OF UNFAIR TRADE PRACTICES ETC. IN INTERNATIONAL CONTRACTS, ANNOUNCEMENT NO. 1997-23, art. 3(1),(9) (1997).

52. Monopoly Regulation and Fair Trade Act (1997) (S. Korea).

53. In light of the increasing number of patent registrations by domestic firms in the Republic of Korea, the Fair Trade Commission of the Republic of Korea announced new “Guidelines on Intellectual Property in General,” which will replace the existing “Types and Standards of Unfair Trade Practices in International Contracts.” SANG JO JONG, *Comments on the Proposed Guidelines on Intellectual Property in General*, in COMMERCIAL LAW IN A REFORMING BUSINESS WORLD: IN COMMEMORATION OF THE SIXTIETH BIRTHDAY OF PROF. KILJUN PARK 1213 (1998).

54. Similar results may occur in other jurisdictions. *See, e.g.*, WILLIAM R. CORNISH, *INTELLECTUAL PROPERTY: PATENTS, COPYRIGHT, TRADE MARKS, AND ALLIED RIGHTS* 220 (1996).

VI. CONCLUSION: EVALUATION OF *SAMSUNG* JUDGEMENT

Since *Samsung* did not rule that direct infringement is a *sine qua non* for contributory infringement, it may not be regarded to possess any great significance in the formation of the law of contributory patent infringement. Limited significance, however, could be derived from the court's ruling that the production of replaceable parts could be regarded as the production of objects used solely in the production of patented inventions.⁵⁵ *Samsung*, however, can be misconstrued as upholding the view that contributory infringement can exist even without direct infringement. The case also possesses the limitation of not examining properly the relationship between contributory infringement and direct infringement, committing an arguable error in the textual interpretation of the statute itself.

The Supreme Court in *Samsung* ruled that the toner cartridge produced and sold by the respondent was an object used "solely in the production of the patented invention," as stated in article 127 of the Patent Act.⁵⁶ The Court provided as a basis for its judgement that the respondent's toner cartridge is an object used solely in the applicant's invention, it is an essential part of the patented invention, at the time of sale of the patented invention the replacement of the toner cartridge was foreseeable, and the toner cartridge was manufactured and sold by the applicant.⁵⁷ Although the respondent's toner cartridge is an object used solely in the invention of the applicant, it does not follow that it is an object used "solely in the production" of the patented invention, which is patent infringement. The Court seemingly considers the cartridge as a basis for contributory infringement, because it does not regard direct infringement to be a prerequisite for contributory infringement.⁵⁸ Interpreting the "everyday actions of component replacement" by purchasers as "production of the patented invention" is arbitrary and oversteps the permissible bounds of interpretation.

55. Sung-Gi Shin, *Whether the Production and Sale of Replaceable Parts of Patented Machine or Manufacture Come Under Contributory Infringement of Patents*, 27 SUP. CT. JUDGEMENT COMMENTARY 615 (1996) (S. Korea).

56. Supreme Court Case No. 96 Ma. 365 (Nov. 27, 1996).

57. *Id.*

58. *Id.*

One must examine, first, what the significance is of the purchase and replacement of toner cartridges by purchasers of the applicant's laser printer in relation to the scope of the applicant's patent rights. Then, one must determine whether the replacement of toner cartridges by purchasers is patent infringement. Unless this is done, it is difficult to determine rationally whether the respondent's toner cartridge is an object used "solely in the production" of the applicant's patented product. If the possibility exists that the laser printer will be reconstructed or produced by assemblers, then production and sale of replaceable parts could also lead to illegitimate reconstruction of the patented invention. However, in a case where only purchasers of the patented invention use components in legitimate repairs and where there is no substantial possibility that the printer will be reconstructed or manufactured by assemblers, there should not be liability for contributory infringement. Basing contributory infringement liability on the respondent's toner cartridge being an essential part of the patented invention, in spite of there being no substantial possibility that the printer will be reconstructed or produced by assemblers, departs from the policy goal of the statutory provision on contributory infringement, which is simply to cut off the source of direct infringement. This departure unjustly results in extending patent rights over components not the object of a patent.

Instead, the courts must examine what the distribution routes for the respondent's toner cartridges are and how the cartridges are finally utilized. Only when a court determines whether the cartridges procured by component assemblers are used in reconstruction or "solely in production" of the patented invention, or whether the cartridges are mainly procured by legitimate purchasers and used solely in everyday component replacement, can a court reasonably judge whether the toner cartridges are used "solely in production" of the patented invention, as stated in article 127 of the Patents Act.⁵⁹ Similarly, the argument that replacement of the toner cartridge was foreseeable when the printer was purchased or that the applicant was also selling the toner cartridge has no special significance other than

59. Patent Act, Law No. 950 of 1961, art. 127 (S. Korea) available at <<http://www.kipo.go.kr/ehhtml/elnfIndex08.html>>.

confirming the nature of the toner cartridge as a replaceable part. The problem is that without a determination as to whether such expendable parts are used in reconstruction and production, and thus constitutes patent infringement, or whether the expendable parts are used solely for legitimate component replacement by purchasers, the rationale in *Samsung Electronics, Inc.* has no significance in determining whether the replaceable parts are used “solely in production” of a patented invention, as stipulated by Article 127 of the Patent Act. The patent owner should be required to prove, at least, a substantial possibility exists that the toner cartridges sold by the respondent may be used in infringing reconstruction or production, in order for the sales by the respondent to be recognized as contributory infringement under article 127 of the Patent Act.

The toner cartridge is no more than a part of the applicant’s patented invention and the toner cartridge in itself does not amount to a patented invention. The assertion that the production of toner cartridges is contributory infringement, in spite of there being no possibility or danger of direct patent infringement, is an unjust extension of the scope of the patent and is an abuse of patent rights. The mere fact that the toner cartridge is an essential part of the patented invention does not permit extending patent rights to a toner cartridge that was not originally the object of a patent. However, such an assertion would also be in contravention of the MRFT, which prohibits tie-ins in the components industry when such tie-ins exert a restrictive influence on competition.⁶⁰

The Supreme Court’s recognition of the respondent’s production of components as contributory infringement will result in the unjust expansion of the scope of patent rights and create the danger of patent abuse. Replaceable parts may or may not be used “only in the production” of patented inventions, but in producing replaceable parts or in producing other components, contributory infringement of patents can only exist within the scope of the patent claims. Therefore, such contributory infringement should only be recognized when there is a substantial possibility of direct infringement.

60. Monopoly Regulation and Fair Trade Act (1997) (S. Korea).