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The FRAND Defense In European Litigation Involving Standard-Essential Patents

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Standard-Essential Patents – Do They Matter?



A very incomplete list of cases involving standard-essential patents and filed in German courts in the last five years:

- [CIF](#) v. Deutsche Telekom et al. (2007/ADSL)
- [IPCom](#) v. Nokia (2008/UMTS)
- [IPCom](#) v. HTC (2008/UMTS)
- [Sisvel](#) v. Palm (2010/MPEG-2)
- [MPEG LA](#) v. Aldi (2010/MPEG-2)
- Philips v. SonyEricsson (2010/UMTS)
- Samsung v. Apple (2011/UMTS)
- Motorola v. Apple (2011/UMTS)
- Motorola v. Microsoft (2011/MPEG-4)



FRAND Defense – Introduction

Technical Standards



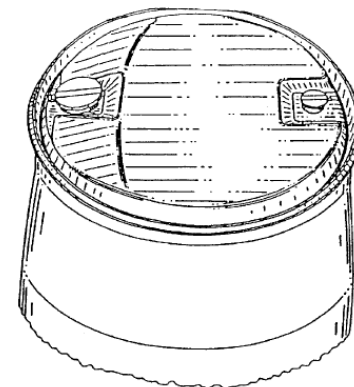
A technical standard provides a set of rules which specify a technical system.

Purpose

- Enable interoperability
- Promote widespread application of a technology

Examples

- Communication standards: GSM, UMTS, ISDN, ADSL, WiFi, ...
- Audio/video/graphics standards: MPEG, JPEG, ...
- Standards for storage media: CD, DVD, Blue Ray, ...
- World of mechanics: bottles, barrels, wheels, ...



Standard Setting



Standard Setting Organizations (SSOs)

- SSOs take initiative to develop and adopt standards
- Members: manufacturers and other private stakeholders, but also (quasi)governmental agencies
- Examples:
 - International Telecommunication Union ITU (ISDN, ADSL, ...)
 - European Telecommunications Standards Institute ETSI (GSM, UMTS)

De facto standards

- Standards derived from products that have achieved a dominant position by public acceptance or market forces
- Example: Microsoft Word's .DOC format

Standard-Essential Patents



(Parts of) a standardised technology may be covered by patents.

A patent is *essential* for a standard if the patent necessarily has to be used (infringed) by products which comply with the standard.

Infringement of a standard-essential patent is relatively easy to discover and to prove:

- Just have to show that
 - the patent “reads on” the (publicly available) standard specification
 - the product complies with the standard (i.e. by statement of manufacturer)
- No need to analyse technical features of the product

Declarations to SSO



SSOs normally require their members to disclose any patent or patent application which they believe to be essential for a standard

- But oftentimes patents declared essential turn out to be non-essential (Goodman/Myers Report (2005): only 20% of patents declared essential for UMTS are in fact essential)

Also, they require their members to declare that they are willing to grant a license under their standard-essential patents to any party requesting it

- Licenses must be granted on (fair,) reasonable and non-discriminatory (“**(F)RAND**”) terms
- This is to guarantee access to the standard to everyone, even non-members

The Problem



What if the owner of a standard-essential patent and a user of the standard do not come to a license agreement?

- The patent owner can sue for patent infringement and will be awarded injunctive relief as a regular remedy
- Having an injunction in his hands, the patent owner can force the defendant into a settlement at terms favorable to the patent owner

The Problem



Example:

- Suppose a patent is essential for the MP3 standard
 - => No possibility to use the MP3 standard without infringing the patent
- An MP3 player must use the MP3 standard, otherwise it will not work
- => No possibility to remove infringing feature
- => By enforcing the injunction, patent owner can block defendant's access to the market until defendant accepts license terms dictated by the patent owner

The Problem



The problem is worse in cases where the patent owner is a non-practising entity

- Practicing entities more likely to come to an agreement on reasonable terms because defendant can possibly countersue for infringement of his own patents
- In contrast, non-practicing entity cannot be countersued for patent infringement because the non-practicing entity's only activity is patent enforcement

The Solution



The FRAND defense provides the defendant with the possibility to avoid an injunction

- The FRAND defense is based on the patent owner's obligation to grant licenses under the standard-essential patent to anyone on FRAND terms
- It is a defense only against the claim for injunctive relief (cease-and-desist order)
- Patent owner can still claim damages for past infringement, information about suppliers, or other standard remedies
- Acceptance of the FRAND defense by the court does not lead to a license agreement. It simply has the effect that injunctive relief is denied

The Netherlands



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Samsung v. Apple

District Court of The Hague (2011)



Facts of the case:

- Samsung filed a preliminary injunction action against Apple, alleging infringement of four patents allegedly essential for the UMTS standard
- Samsung had declared to ETSI that it is prepared to grant licenses under the patents on FRAND terms
- Apple made a license offer limited to the four patents-in-suit, and limited to the Netherlands.
 - Apple argued that the UMTS components of the accused devices should be the royalty base, and that the cumulative royalty burden for all cellular essential patents should not be higher than 5%
- Samsung made a counter offer under its entire worldwide portfolio of standard-essential cellular patents

Samsung v. Apple



The court held:

- Samsung's FRAND declaration to ETSI obliges it to start negotiations on a license on FRAND terms
- The royalty rate offered by Samsung is so much out of line with FRAND that it must be concluded that it is not actually prepared to license on FRAND terms
 - Samsung has not indicated that substantially lower fees are up for discussion
- There is not sufficient evidence to conclude that Apple is not prepared to take a license on FRAND terms
- Unders these circumstances, reliance on patent rights is abuse of law

Conclusions

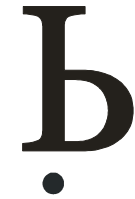


Conclusions which can be drawn from the case

1. Legal basis of FRAND defense:

- The FRAND defense can be raised at least if the patent owner has made a FRAND declaration to the SSO
 - Antitrust law is not discussed as the basis for the FRAND defense
 - In *Philips v. SK Kasetten*, the same court had rejected the FRAND defense based on antitrust law. However, SK Kasetten had not applied for a license
- => Questionable whether the FRAND defense is available in the absence of FRAND declaration by patent owner
- E.g. if the patent was transferred by the original owner

Conclusions



Conclusions which can be drawn from the case

2. Mechanism of the FRAND defense:

- Defendant must make an offer which can be deemed FRAND
- Patent owner can avoid FRAND defense by
 - making counter-offer which can also be deemed FRAND, or
 - making a counter-offer which is not yet FRAND, but indicating that he is willing to negotiate a license under substantially lower fees

Germany



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The *Orange Book* Decision

Federal Court of Justice, KZR 39/06 (2009)



Facts of the case:

- Defendant Master & More distributed writable and rewritable CDs (CD-R, CD-RW), which are governed by the “Orange Book” standard developed by plaintiff Philips, and by Sony
- The court of lower instance (Karlsruhe Court of Appeals) found that the patent-in-suit was essential for the Orange Book standard
- Defendant argued that a royalty rate of 1%-5% would be reasonable, and offered 3% to Philips
- Philips rejected the offer, arguing that none of its licensees paid only 3%

The *Orange Book* Decision



Federal Court of Justice acknowledges that defendant may have a FRAND defense, based on antitrust law:

- Denial to grant a license under a standard-essential patent may be an abuse of dominant position (cf. Art 102 TFEU)
 - Owner of standard-essential patent has dominant position because he controls access to the market of products implementing the standard (Federal Court of Justice, KZR 40/02 (2004), IIC 2005, 741 – *Standard-Spundfass*)
 - It is irrelevant whether the patent owner participated in the standard setting (Federal Court of Justice – *Standard-Spundfass*)
- In this situation, seeking injunctive relief is likewise abuse of dominant position. Therefore, injunctive relief must not be granted by the courts

The *Orange Book* Decision



However, the Court formulates two prerequisites for the FRAND defense:

1. Defendant must make a license offer which the patent owner cannot refuse without discriminating or unfairly hindering defendant
2. Defendant must regularly pay or at least deposit for the patent owner the royalties due under the defendant's licence offer

The *Orange Book* Decision

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“I made him an offer he can’t refuse ...”



... without violating antitrust law!

The *Orange Book* Decision



Offer which the patent owner cannot refuse without discriminating or unfairly hindering defendant

- Not only the offered royalty rate but also other terms of the license offer must be such that patent owner cannot refuse the offer
- Lower instance court had stated that the licence offer must be so high that, by asking for more, the patent owner would violate antitrust law
- In the *Orange Book* case, defendant offered 3%, which may have been FRAND, but lower instance court rejected the FRAND defense because 5% may also have been FRAND
- To be on the safe side, the defendant's offer had to go to the limit or beyond of what can be regarded as FRAND
- Defendant has burden of proof

The *Orange Book* Decision



Since the defendant will often not know the amount up to which a royalty rate may still be considered FRAND, the Federal Court of Justice allowed the following procedure:

1. Defendant makes an “open” offer to take a licence under FRAND conditions, i.e. without specifying the license fees
2. Defendant deposits an amount that at least covers any fees the patent owner can reasonably demand
3. Plaintiff determines the fees
4. Defendant may ask the court to assess whether the amount set by the patent owner is FRAND

Open Questions



The *Orange Book* decision left more questions open than it answered

- For defendant's use of the patent prior to his *Orange Book* offer, can the patent owner claim damages which exceed FRAND royalties?
- Can the defendant still pursue a nullity action while making an *Orange Book* offer?
- When does the defendant have to make the offer? Can the offer be amended?
- Where worldwide portfolio licenses are standard, can the patent owner refuse an *Orange Book* offer limited to the (German) patent-in-suit?

Super-FRAND Damages?



For defendant's use of the patent prior to his *Orange Book* offer, can the patent owner claim damages which exceed FRAND royalties?

- Damages which may exceed FRAND royalties: infringer's profit, lost profit
- Pro: nobody would voluntarily offer to take a license, but wait until they get sued, if paying FRAND royalties for past use is the maximum penalty
- Con:
 - Due to his obligation to grant licenses on FRAND terms, patent owner only lost FRAND royalties
 - Patent is not (only) used because of technological achievement of the invention but because it is part of the standard
- Mannheim District Court even found that defendant must acknowledge damages claim in his *Orange Book* offer (7 O 122/11 (2011))

Nullity Actions



Can the defendant still pursue a nullity action while making an *Orange Book* offer?

- Under established German case law, licensor has the right to terminate license agreement if licensee brings nullity action against licensed patent
 - Karlsruhe Court of Appeals: *Orange Book* offer must explicitly acknowledge this (6 U 136/11 (2012))
- Mannheim District Court, 7th Civil Chamber: defendant may not reserve the right to continue nullity action in case patent owner asks for past damages exceeding FRAND (7 O 122/11 (2011))
- Mannheim District Court, 2nd Civil Chamber: unless nullity action is withdrawn or at least suspended, FRAND defense will not be considered (statement by presiding judge in hearing of *Motorola v. Microsoft* on 7 Feb. 2012)

Timing Of the Offer



When does the defendant have to make the offer? Can the offer be amended?

- Prior to use of the patent?
- Immediately after warning letter?
- Immediately after being sued?
 - Otherwise risk of rejection for late filing under §§ 296, 282 Civil Procedure Code
- During first instance proceedings?
 - When filed only in appeal stage, risk of rejection for late filing under §§ 531 Civil Procedure Code
- Mannheim District Court and Karlsruhe Court of Appeal have not rejected offers made or amended late in the proceedings

Individual License v. Portfolio License



Where worldwide portfolio licenses are standard, can the patent owner refuse an *Orange Book* offer limited to the (German) patent-in-suit?

- E.g. in the field of telecommunications, worldwide licenses to the entire portfolio of patents declared as standard-essential are common
- Pro:
 - The owner of a large portfolio would normally not a license under a single patent and/or limited to Germany
 - Owner would not grant an individual license, knowing that the licensee continues infringing other patents in the portfolio, or counterparts of the same patent in other jurisdictions

Individual License v. Portfolio License



Where worldwide portfolio licenses are standard, can the patent owner refuse an *Orange Book* offer limited to the (German) patent-in-suit?

- Con:
 - Antitrust law requires that the defendant remains free to decide which of the patent and in which jurisdictions he wants to license
 - In all likelihood, many of the patents in the portfolio are in fact not standard-essential => requiring a portfolio license would be a bundling which is illegal under antitrust law
 - Patent owner must not enforce resolution of a potentially worldwide dispute by asserting a single patent in Germany

Individual License v. Portfolio License



Where worldwide portfolio licenses are standard, can the patent owner refuse an *Orange Book* offer limited to the (German) patent-in-suit?

- Mannheim District Court (7 O 65/10 (2011)):
 - Offer to a license under the patent-in-suit only may in principle not be refused by the patent owner
 - There may be exceptions in cases where it becomes manifest that defendant's strategy is to infringe the patent owner's other patents until he gets sued
 - Burden of proof for this is on patent owner
 - Not sufficient to claim that defendant uses all patents in the portfolio



How Much Is FRAND For Essential Cellular Patents?

FRAND Royalty Rate For Portfolio License



In the case of a license offer to a portfolio of standard essential patents, FRAND royalties could be derived from comparable license agreements concluded by the patent owner or by the defendant with third parties

- One problem is that license agreements usually contain confidentiality clauses and are therefore difficult to introduce in court proceedings
- Another problem is that license agreements are difficult to compare
 - Many agreements contain cross license agreements; the value of the cross license is hard to estimate
 - The importance of the portfolio may have changed since the previous agreement was made
 - The licensed devices may have evolved
 - ...

FRAND Royalty Rate For Individual Cellular Patent



A conventional mobile telephone uses hundreds of standard-essential patents. How can you determine the FRAND royalty rate for 1 valid essential cellular patent?

One way that has been suggested is to derive the royalty rates for an individual patent comprised in a portfolio by dividing royalty rates for portfolio licenses concluded in the past by the number of patents in the portfolio

- But patent owner will argue that the patent he picked for bringing suit is particularly important and particularly strong (valid and infringed)
- Discounts for portfolio licenses?
 - District Court Mannheim: additional transaction costs for individual licenses are not to be taken into account. All that matters is the value of the licensed technology (7 O 65/16 (2011))

FRAND Royalty Rate For Individual Cellular Patent



Another approach which has been suggested could be as follows:

Step 1: Determine what would be a reasonable cumulative royalty burden for standard-essential cellular patents

- I.e. how much can the manufacturer be asked to pay in total license fees for essential cellular patents
- Estimates vary between 5% and 30% of the sales price of a mobile phone
- Let's assume here that 12% is a reasonable value

FRAND Royalty Rate For Individual Cellular Patent



Step 2: Estimate the number of valid standard-essential cellular patents used by the mobile phone

- Most patents essential for cellular standards (GSM, GPRS, UMTS, ...) where declared essential to the ETSI
 - Total number of patents declared essential is difficult to count because ETSI only provides copies of the paper declarations
 - Example: 3000 different patents declared essential for 2G and 3G
- Estimates say that only 20% of all patents declared essential are in fact essential
- One can estimate that about 50% of all patents are invalid

=> A 3G mobile phone uses 300 valid essential cellular patents (example)

FRAND Royalty Rate For Individual Cellular Patent



=> average FRAND royalty rate for 1 valid essential cellular patent (example):

$$12\% / 300 = 0,04\% \text{ of the sales price of the mobile phone}$$

Step 3: Adjust in accordance with importance of the patented technology

- Not all inventions are equal. Some bring more advancement to technology, others less
- Average FRAND royalty rate should be adjusted according to importance of patent in suit
- In practice, difficult to show that patent-in-suit is more or less important than average cellular patent

Smartphones



The advent of smartphones changes the calculation

- Smartphones are much more than just mobile phones. They are mini computers
- Smartphones do not only use cellular standards, but many other standards like WiFi, Bluetooth, JPEG, MPEG, ...
- The value of a smartphone is determined in large parts by hardware features like the screen or the camera, or by software features like the user interface which have nothing to do with the telephony function
- A smartphone is much more expensive (EUR 200 to 600) than a conventional mobile phone (EUR 20 to 100)

=> Not justified that owner of cellular essential patent benefits from the value of the additional features

Smartphones



One solution would be to adjust the royalty base. Examples for a reasonable royalty base include:

- The chipset which embodies the cellular functionality
- The price of a conventional mobile phone
- The price difference between a cellular device and a comparable device without cellular functionality
 - E.g. price difference between a tablet computer with UMTS functionality and a similar tablet computer without UMTS functionality



Thank you for your attention!

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