



Using PATENTS to reduce R&D efforts

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 **Origin IP Solutions LLP**
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**Using Patents
to
reduce
R&D efforts**

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Important

The information provided in this eBook is generic and only for general understanding of the subject. For specific matters, please take advice from the experts as certain steps provided are very critical and shall be performed only by the experts in the subject.

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Chapter 1

What is a patent?

The word 'Patent' originates from the Latin word, 'patere', which means 'to lay open'. Patent is a techno-legal document granted to the inventor (s)/applicant (s) by the respective patent office, in order to claim legal rights over the invention and to prevent third parties from using it without consent of the patentee or patent holder. To be more precise, patent is a set of exclusive rights granted by a state (national government) to an inventor or their assignee for a limited period of time in exchange for a public disclosure of an invention. Generally speaking, in order to get a patent, the invention shall not only be novel, inventive and industrially useful but also disclose best mode of working known to the inventor at the time of filing.



In today's fast growing economy, innovation is adopted as a major strategy to achieve competitive edge in the market. Expectations of the consumer on one hand and competition on the other hand put huge pressure on the companies to introduce new products in the market. However, short product cycle and increasing competition put enormous pressure on companies to have sustainable

innovations so as to become and remain competitive in the domestic and foreign markets. Appropriate protection of innovation is extremely critical and the exclusive rights provided by a patent may be crucial for innovative companies to prosper in a challenging, risky and dynamic business climate.

The purpose of this eBook is to find out the ways companies can use patents to create stronger technologies/products, innovate better in less time and create more valuable products. In this document, we have used the terms “Patent” and “Patent Application”, where “Patent” literally refers to the granted patent, which provides exclusive rights for inventor or patentee for limited period of time, subject to certain conditions. A “Patent Application” refers to a request pending at a patent office for the grant of a patent for the invention described and claimed in the application.

Let’s understand more about patents, step by step in next sections.

Chapter 2

Patents are WEALTH of knowledge

Patents contain a wealth of knowledge as disclosing the best mode of working the invention is one of the important requirements to get a patent. This means that an invention submitted to the patent office in the form of a patent, discloses the invention to the



extent that a person with ordinary skills in the art understands it well and is able to replicate it independently. After filing a patent application, usually it is not immediately available for public viewing till expiry of a specific period of time, for example, 18 months in India. This means that a patent application is published only after expiry of 18 months from the date of filing. Usually all national patent offices have their own databases, where a patent application is published. Therefore, the patent databases have extremely valuable information in the form of patent applications or granted patents.

In a patent specification, the description of the invention, supported with drawings and examples further help to understand the working of the invention. Since grant of a patent undergoes

various steps including the examination of the patent application by patent examiner, the subject matter claimed in a patent is not just unique but also meets statutory standards. Therefore, patent is a wealth of knowledge.

Chapter 3

Rights of a Patent holder

A patent gives exclusive rights to the patentee to prevent third parties from making, using, selling, offer for sale and import the patented product into the country where there is patent protection.



(1) Where the subject matter of the patent is a product, the patentee has exclusive right to prevent third parties, without his consent, from the act of:

- a. Making;
- b. Using;
- c. Offering for sale;
- d. Selling; or
- e. Importing for those purposes that product in India.

(2) Where the subject matter of the patent is a process, the patentee the exclusive right to prevent third parties, without his consent, from the act of:

- a. Using that process;

- b. Offering for sale;
- c. Selling; or
- d. Importing for those purposes the product obtained directly by that process in India.

Any violation to these rights would generally deem to be patent infringement though in most of the legal regimes, there are certain exceptional acts where the use of patented invention without consent of the patentee doesn't constitute infringement. In India, following acts are not deemed to be infringement:

- Any act of making, constructing, using, selling or importing a patented invention solely for uses reasonably related to the development and submission of information required under any law for the time being in force, in India, or in a country other than India, that regulates the manufacture, construction, use, sale or import of any product.
- Importation of patented products by any person from a person, who is duly authorized under the law to produce and sell or distribute the product, shall not be considered as an infringement of patent rights.

A patent specification has various sections, such as, title, background, description, drawing, abstract etc. but the most important section is 'Claims', that not only defines scope of the invention claimed but also defines legal rights of the patentee.

Chapter 4

Can the patents owned by third party (ies) be used?

As we know that patents are wealth of knowledge for various reasons. A patent is a technical document and disclosure of best mode of working of the invention is one of the conditions on which it is granted. Unlike paper publication, a patent discloses a much better description of the invention along with examples and drawings to the extent that a person with reasonable skills in the art is able to replicate it without any further assistance. Grant of a patent undergoes examination process where complete scrutiny of the patent happens, which ensures that the subject matter of a patent is authentic, though it is generally believed that it is possible to invalidate a majority of patents. All over the globe, every day several patents are granted and each national patent office maintains data of all granted patents as well as patent publications. The good thing about such databases is that they are searchable where one can search, view, download and analyse the patents.



Let's further understand how this wealth of knowledge in the form of patents can be effectively and smartly used to reduce R&D

efforts. Now, the most important question that arises is, “Can these patents be used or implemented?” The answer is Yes and No. These patents can be used by you only if they are abandoned/expired or you have sought permission to use them or if they are not filed/granted in the jurisdiction of your choice. Using a valid patent, without due diligence can put you in a big trouble.

Let us analyse an infringement case between Philips and two companies namely, Anant Electronics and Futuristic Concepts Media Ltd who were using “digital transmission system” technology to manufacture VCDs using MPED 1 coding audio compression/expansion system in India. Philips had a patent protection (Patent no 175971) on this technology in India, which these two companies were unaware of. They were in fact infringing the patent granted to Philips. Delhi High Court ordered both the companies to stop manufacturing the VCDs that infringed Philip’s “digital transmission system” patent. Had they done infringement risk analysis before manufacturing and launching the product, they would have saved lots of time and money lost in litigation. Therefore, using technology protected by another company can drive one out of business and prior risk assessment is essential to prevent such disputes.

Abandoned, Expired and Lapsed patent

The three terms, Abandoned, Expired and Lapsed look very similar to each other and it is important to differentiate between them. An

application (patent application) that has been declared abandoned is “dead”, and is no longer pending. There could be various reasons for an application to go abandoned, such as, failure to reply to office action, failure to request for examination or failure to submit complete application within prescribed time after filing provisional application etc. The term ‘Abandon’ is used generally with respect to the patent application.

The patent, which is no longer valid due to non-payment of renewal (maintenance) fees is called as ‘Lapsed patent’. Usually, a lapsed patent can be restored by making a request to the respective authority within specific time period. If lapsed patent is not restored in time, it fails to be in force.

A patent, which has run its full term in a country and is no longer protected in that geography, is called as expired patent. In other words, after completion of 20 years from the date of filing, a patent expires and is open to public. After expiry, the patent holder does not have any rights over the patent and hence, using such patent does not require permission of the patent holder. However, further due diligence is necessary to ensure the legal status of such expired patent. Once the patent is expired, it cannot be renewed or restored.

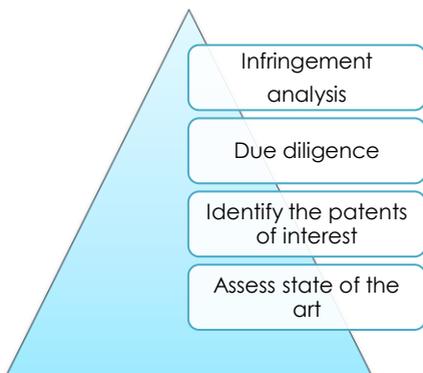
In depth analysis and due diligence by a legal expert is mandatory before using the abandoned, lapsed or expired patents. Following checklist is important to be looked into before deciding to use a patent owned by third party (ies):

1. Legal status of patent (active, expired, abandoned, lapse).
2. Countries or jurisdiction where it is filed/granted.
3. Countries where the patent application would be filed during national phase.

Chapter 5

How to use patents to reduce R&D efforts

Now we know that patents are wealth of knowledge and after proper due diligence, one can make use of existing patents that are expired, lapsed or abandoned. Let's see how they can be used to reduce R&D effort.



Let's take an example, suppose you are doing research on the product that is meant for water purification, converting any water into portable and drinking water. Before starting the process of R&D and designing your product, you have two options.

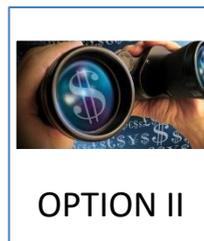
❖ Option I

The first option is to have discussion with your team of engineers and design the product. With this option, you can finalize the product which might be the replication of something that is already been patented/claimed/published or the level of innovation may not be high. If there is search in existing patents in the jurisdiction where you intend to manufacture, market or sell the product is not done, there may be likelihood of infringing the patent rights of third party (ies)



❖ Option II

However, the second option is to outline the features that you want to see in the product and perform a broad patent search to pull and list all the related patent documents. Going through such list of patents gives you overview of the kind of work that is already been done by others, key players in the industry, countries that have the maximum number of such patents. Additionally, you can always perform a product search to know about the similar products that are already in the market, what price they are selling at, features of such products etc. With this kind of data in hand, you are certainly in a much better position to design a new product.



Now let's see using existing patents, how can R&D cycle can be reduced and at the same time, you have more innovative product in hand.

💡 **Step 1: Assess the state of the art**

In this technological progressive era, huge amount of data gets generated and added in the prior art every day. Where, on one hand keeping pace with technical progress in present times is a challenge, on the other hand, innovation



has to happen to ensure sustainable growth. Till the time, you foresee the innovation and market demand in a given area of technology, it is impossible to create significantly creative and valuable products. Another issue in technologies such as electronics or software is that innovation cycle is too short, meaning that in no time after you market or commercialize the product, you may see next versions of the product floating around. Considering high cost of R&D and resources, output often is not that meaningful and sustainable.

In most of the companies, before designing R&D in a given area of technology, one of the most important step is often missed out, i.e. assessment of 'state of the art'. Even though by means of product surveys, competitors' products or otherwise, the products available in the market are often watched carefully but the wealth of

technical information lying in the form of patents is largely ignored. It is important to note that few of the patented technologies actually never see the market, meaning that, there is huge amount of information, in the form of patents, which is not seen in the market. Hence, it is essential to assess state of the art before proceeding further with finalising the product features.

Step 2: Identify the patents that are of interest

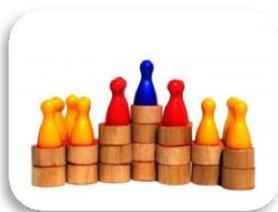
State of the art search shall be done by an expert searcher using the specific and proper search strategies, else you might get patents in thousands and screening through them itself will become a huge task. If the search strategy is too narrow, you might miss out many good patents. Therefore, drawing outline of what is to be searched plays the most important role in extracting the desired patents.



Out of the patents, you got from the first round of search, screen through them and identify the ones that interest you.

Step 3: Due diligence

After going through the contents, process, composition of the patents that interested you, there are chances that you find good patents but don't have



capability or infrastructure to implement all of them. Hence, you should further screen through these patents and short list the ones that you actually want to implement or you have feasibility to implement them. Further, due diligence of these patents shall be done and opinion from an expert shall be obtained to know if it is safe to use such patents or not.

The patents that can be used safely include:

- ✓ Patents that have lapsed and have no chance of restoration;
- ✓ Patent applications that are abandoned and have no chance of restoration;
- ✓ Patent/patent application not granted/filed in the countries where you don't intend to use, market, sell or export them. However, if the international or convention application is filed, you would be required to keep track of such applications as they might enter into national phase after specific time.

💡 **Step 4: Patent infringement analysis**

A patent gives exclusive rights to the patent holder or patentee to exclude third parties from making, using, selling, offering for sale and importing the patented invention. Violation of any of these rights is called as infringement. If any



company wants to launch a product in particular market, it is essential to make sure that launch of such product is not infringing any third parties patent rights because infringement has fatal consequences.

"Freedom To Operate", abbreviated as "FTO", is a kind of patent search that is performed to determine whether a particular action, such as testing or commercializing a product can be done by a company without infringing valid intellectual property rights of others or not and whether such company is "Free To Operate" without any risk of patent infringement. Broadly defined, an FTO search means the ability to proceed with the research, development and/or commercial production, marketing or use of a new product or process with a minimal risk of infringing the unlicensed IP rights of others.

Performing the four steps described above will help you immensely to get idea on latest innovation that is happening in a given area of technology, identify patents of interest, and implement them onto existing products/processes after due diligence and finally infringement analysis to avoid infringement of third party's patent rights.

Step 5: Review Litigation History

It is imperative to note that having a clarity and complete knowledge of litigation in the area of interest or



commercial pursuit, will give additional confidence in the research planning and arriving at an appropriate business plan. Specifically, litigation details concerning patent or other forms of IP dispute is always a good guidance towards drawing ones boundary lines.

Advantages

We observed in four steps above that assessment of state of the art or existing patents along with proper due diligence can give you overview of evolution of technology in a given area of technology and using this information with appropriate due diligence can help you in multiple ways such as:

1. Over view of technical evolution

You get to know about the top companies working in this area and their core expertise. You might get opportunity to collaborate on R&D or further build business relationship with such companies.



2. Avoid re-inventing the wheel

Knowing about the latest patents, you don't waste your time in re-inventing the wheel. This way you can start your research from the next level itself. State-of-art is a gold mine and before inventing further, it makes



lots of sense to mine it. However, if there are no patents filed or granted in the given area of technology, you have more reasons to

smile and be confident that this space is available for further research.

3. R&D efforts are more fruitful

Since this whole exercise gives enough exposure about the patents/patent applications filed or granted in a particular area of technology, you get better clarity on the steps to be taken for further development of product, direction in which R&D efforts has to be planned and of course, patentability assessment of your new ideas. This not only saves R&D effort and time but also helps you to come up with more innovative products having more sustainability in the market.



4. Patent infringement Risk assessment

During the search you may come across some patents that you would like to use or even implement on your current products or processes. However, you may have to further perform due diligence to ensure that you are not infringing any third party's legal rights. If such patents are filed/granted in the jurisdictions or countries where you have or plan to have business, you can always look for in-licensing such patents.



5. Avoid litigation and related expenses.

Once an appropriate litigation research is done in the area of interest – one can avoid the pitfalls of getting similar litigations and save from possible litigation hassles and expenses.



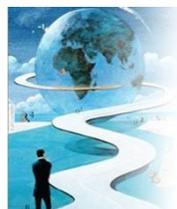
About Origiin

Origiin is a value driven company that offers services and solutions in the area of Intellectual Property Rights. Our prime areas of focus are Patent, Copyright, Trademark, Design and Contract law. We provide complete IP solutions to the innovation and research based companies by assisting them with identification, analysis, protection, management and exploitation of IP in an effective manner. With a team of skilled patent agents and attorneys we have so far provided quality services to more than 250 companies from diverse areas of technology.

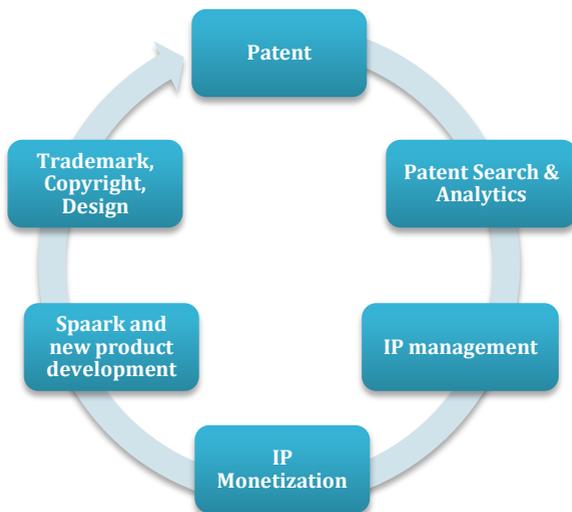


Mission

- Be recognized and respected as one of the premier IPR organizations with strong values in terms of transparency, honesty and authenticity.
- Enable clients to realize long term value and benefits from IP by identifying, securing, exploiting and managing it in best possible and cost-effective manner.
- Make the industry and academia aware about the legal provisions and concepts of IPR in a simplified manner thereby enabling them to secure, exploit and manage it.



Our services



Origiin is a value driven company that offers services and solutions in the area of Intellectual Property Rights. Our prime areas of focus are Patent, Copyright, Trademark, Design and Contract law. We provide complete IP solutions to the innovation and research based companies by assisting them with identification, analysis, protection, management and exploitation of IP in an effective manner. With a team of skilled patent agents and attorneys we have so far provided quality services to more than 250 companies from diverse areas of technology.

Our main areas of services are:

1. **Patent**
2. **Patent Search and Analytics**
3. **IP Management**
4. **IP Monetization**
5. **Spaark and New Product Development**
6. **Patent alerts**
7. **Trademark**
8. **Copyright**
9. **Design**

Our other publications

1. Minimising risk of patent infringement

About the book: The objective of this book is to allow readers to comprehend the ways to reduce patent infringement risks in today's competitive backdrop. Freedom to Operate or FTO search is the most effective manner to reduce patent infringement risks and is to be compulsorily done by everybody willing to launch a new product in the market. The book, through examples and case laws, aims to provide a clear understanding of the importance of patents, rights of patent holders, types of patent infringements, the devastating effects of patent infringement litigations and ways to alleviate the chances of being faced with such litigations. Special care has been made to make the book

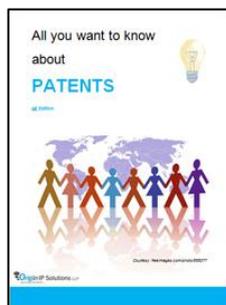


simple and straightforward so as to be of use to beginners and professionals alike. We hope our efforts have been beneficial to you.

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2. All you want to know about patents

About the book: The objective of this book is to present an insight to different aspects of Intellectual Property Rights (IPR). The book is a compilation of various articles published by Origiin IP Solutions LLP and aims to provide a clear understanding of importance of patent search, considerations before filing for a patent, process of patenting, position of software related inventions, career in IPR etc.



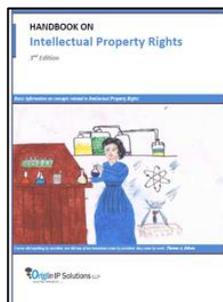
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3. Handbook on Intellectual Property Rights

About the book:

The Handbook provides a brief introduction to various types of Intellectual Property Rights.

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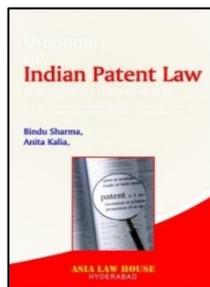


4. Dictionary on Indian Patent Law

About the book:

The dictionary has been designed in a unique manner explaining legal meaning of the key terms with reference to relevant sections and rules, illustrations, case-laws wherever applicable.

How to order: Goto www.flipkart.com or www.infibeam.com to order online.



ABOUT THE BOOK

Information available in Patent documents is true wealth of knowledge and after proper due diligence, one can make use of existing patents that are expired, lapsed or abandoned and use them to reduce their R&D efforts to a great extent. Our book named 'Using patent to reduce R&D efforts' is an effort to list out the ways organizations can make use of existing patents and give right direction to R&D efforts.

In the book, we have tried to stepwise illustrate the meaning of patents, rights of a patent holder and how patents constitutes wealth of knowledge, etc. In the later section we have also explained methods to use patents to reduce R&D efforts without infringing patents of third parties. Even though the book provides steps to use the existing patents, it is strongly recommended to consult subject experts before using any third party's patents.

Special care has been taken to explain the concepts in simple lucid manner. We hope our efforts have been beneficial to you.

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