

# What is your Patent Worth?

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## What is Your Patent Worth?

### **Agenda**

- Overview of Patents
- Snapshot of Patenting trends – wireless LAN
- How patents create value
- Valuing patents
- Licensing considerations

## Overview of patents

- Patents provide their owner the right to exclude others from making, using, or selling the invention for a limited period of time. New patents are protected for 20 years from the date that the patent application was filed.
- The invention must be new, useful and non-obvious
- There are three types of Patents:
  - Utility patents are the most common, and protect a function, such as a new way of making widgets.
  - Design patents protect aesthetic appearances such as an innovative shape of a widget.
  - Plant patents are extremely rare and protect asexually reproduced plants.
- Obtaining a patent can be an expensive process. Attorneys, maintenance and filing fees for one US patent will be well over \$10k. An internationally filed and maintained patent can cost several hundred thousand dollars.

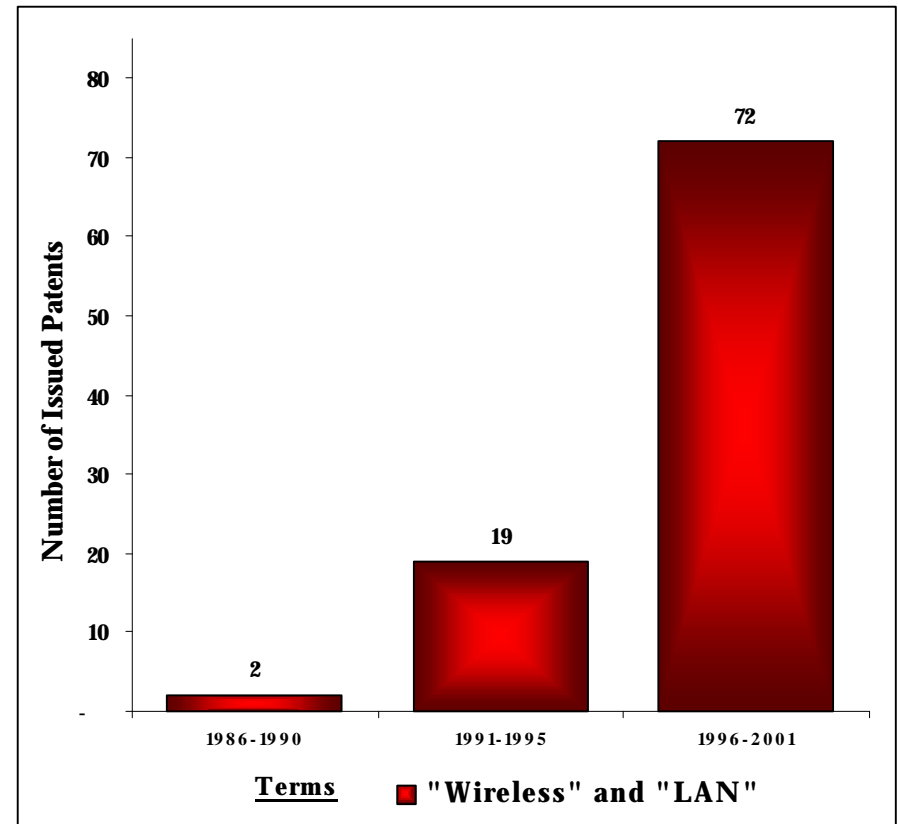
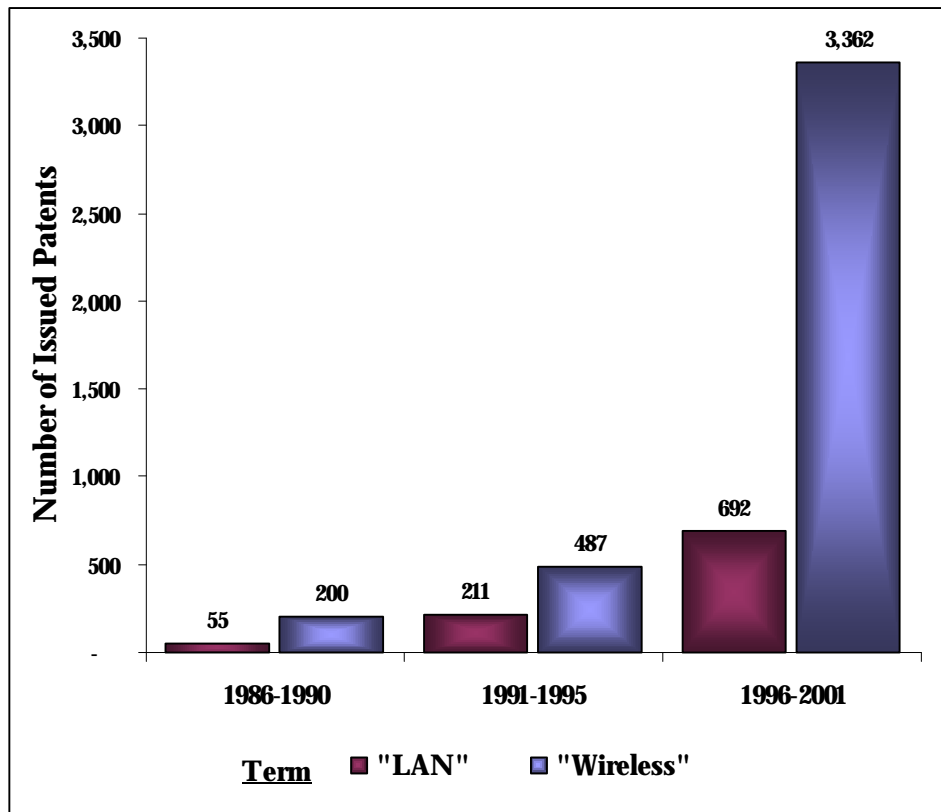
## Other types of intellectual property

- **Copyrights** protect expressions of idea such as software or literature.
- **Trade secrets** protect know-how such as manufacturing process.
- **Trademarks** or  **Servicemarks** protect symbols or logos.

## What is Your Patent Worth?

# Patenting trends – Wireless Local Area Networks

Number of US patents issued in the past 15 years with the terms “Wireless”, “LAN” and “Wireless” and “LAN” in the patent’s abstract.



Source: Results of “quick search” of US Patent & Trademark web site on 8/29/01

## How can intellectual property create value?

### Increased Profit

- **Incremental sales**
  - Additional geographies
  - More desirable product
  - Lower operational costs
- **Decreased cost**
  - Lower cost to manufacture
  - Lower cost to distribute
  - Lower cost to service

### Licensing

- **Profits split with licensee(s)**
- **Risk is shared with licensee(s)**
- **Licensing Structures**
  - Exclusive or non-exclusive
  - Geographical restrictions
  - Use restrictions
  - Performance restrictions

 **These may not be mutually exclusive** 

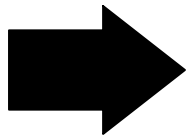
## How can a patent create value?

### Increased Profit

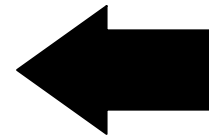
- Protect your franchise
  - Copycat products
  - Business methods
- Manufacturing processes

### Licensing

- Enhances a licensing program
- Infringement potential
- Clearly identifies IP licensed
- Protects licensee

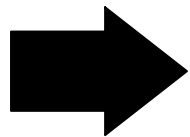


**Acknowledges technology leadership  
and provides means to share  
invention without losing rights**

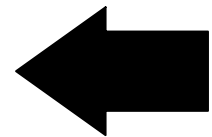


## Potential reasons not to patent?

- Others can learn your technology and may develop a non-infringing design around alternative.
- Others can learn your technology and infringe with little chance of discovery (e.g. manufacturing process).
- The life of patent may be more limited than the invention (e.g. Coca-Cola formula).

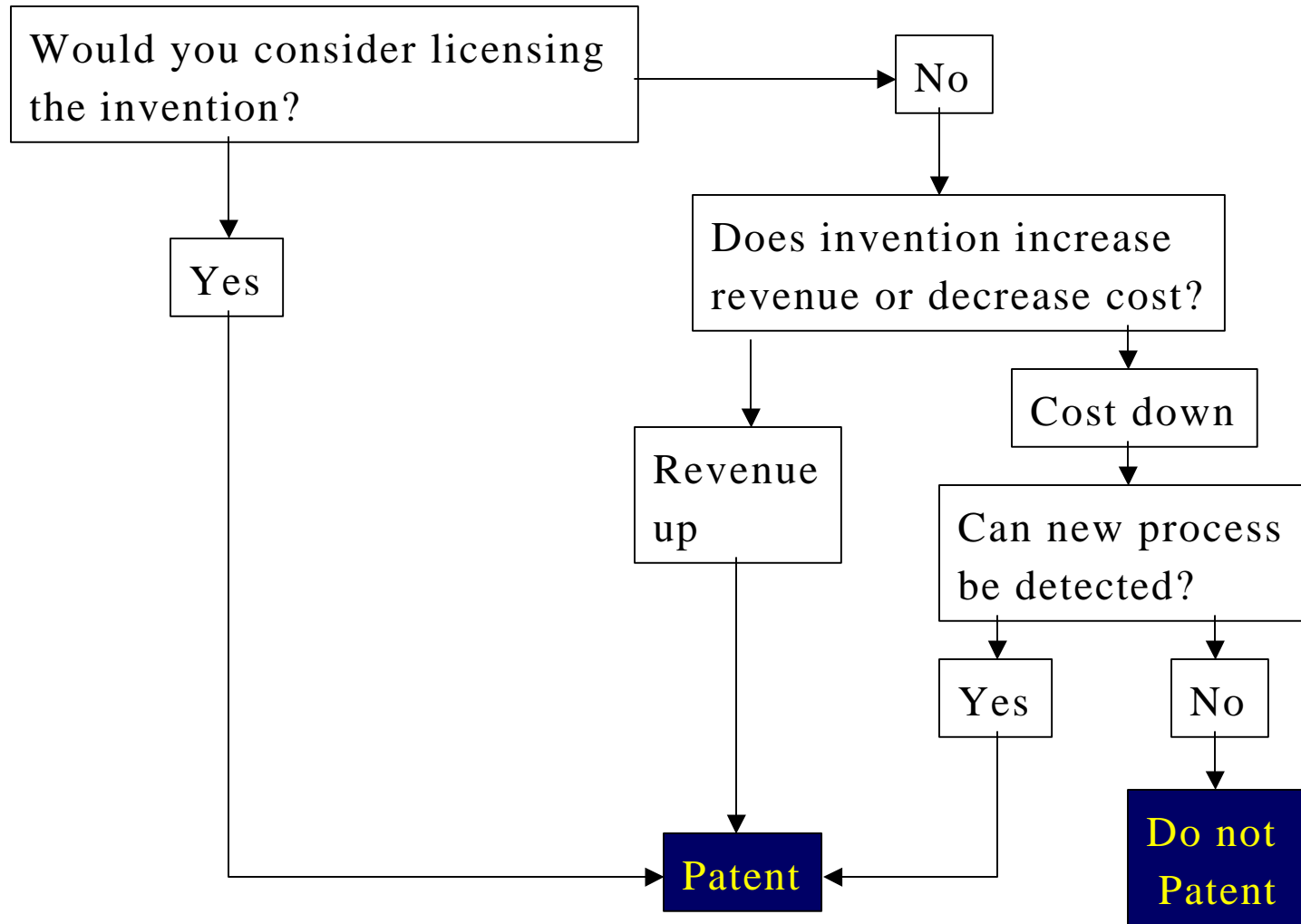


**Many factors must be considered before deciding whether to obtain a patent**





## Making the decision to patent



## Valuing patents

Patents are, by definition, novel and non-obvious. As a result, valuing patents is a challenging exercise. The three approaches typically used to value patents are:

### **Cost Approach**

An estimate of the cost to recreate or “design around” the patent and its present market position is used to approximate the value of the patent.

### **Market Approach**

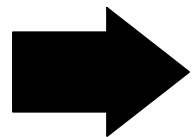
Comparable sales or royalty agreements are used to approximate the value of the patent.

### **Income Approach**

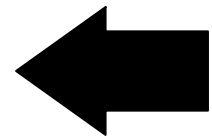
An estimate of the incremental cash flow attributable to the patent, adjusted for risk, is used to approximate the value of the patent.

## Market approach

- Arm's length licensing or sales agreements of comparable patents and technology are used to estimate the value of the patent.
- These agreements are obtained from public and non-public sources.  
Potential sources of royalty rate agreements include:
  - Proprietary databases (e.g. RoyaltySource)
  - SEC Filings
  - Previous inter or intra-company agreements
  - General search (e.g. Lexis Nexis, Internet)
- A comparable agreement represents a “guideline” and may be adjusted to reflect the nuances of the patent being valued.



**The market approach is frequently used  
to check to an income approach model**



## **Problems with the cost and market approaches**

### **Cost Approach:**

- The fundamental assumption of the approach, the cost to develop the patent drives its ultimate value, usually isn't appropriate.
- It is difficult to assess the comparability and feasibility of design around alternatives.
- It is often difficult or impossible accurately estimate development costs and the cost to replace the position in the market.

### **Market Approach:**

- It is often difficult to find agreements for comparable technologies
- Many agreements contain cross licensing and other complicated conditions which make it difficult to assess the rate or value of the license
- It is very difficult to “un-bundle” combined assets

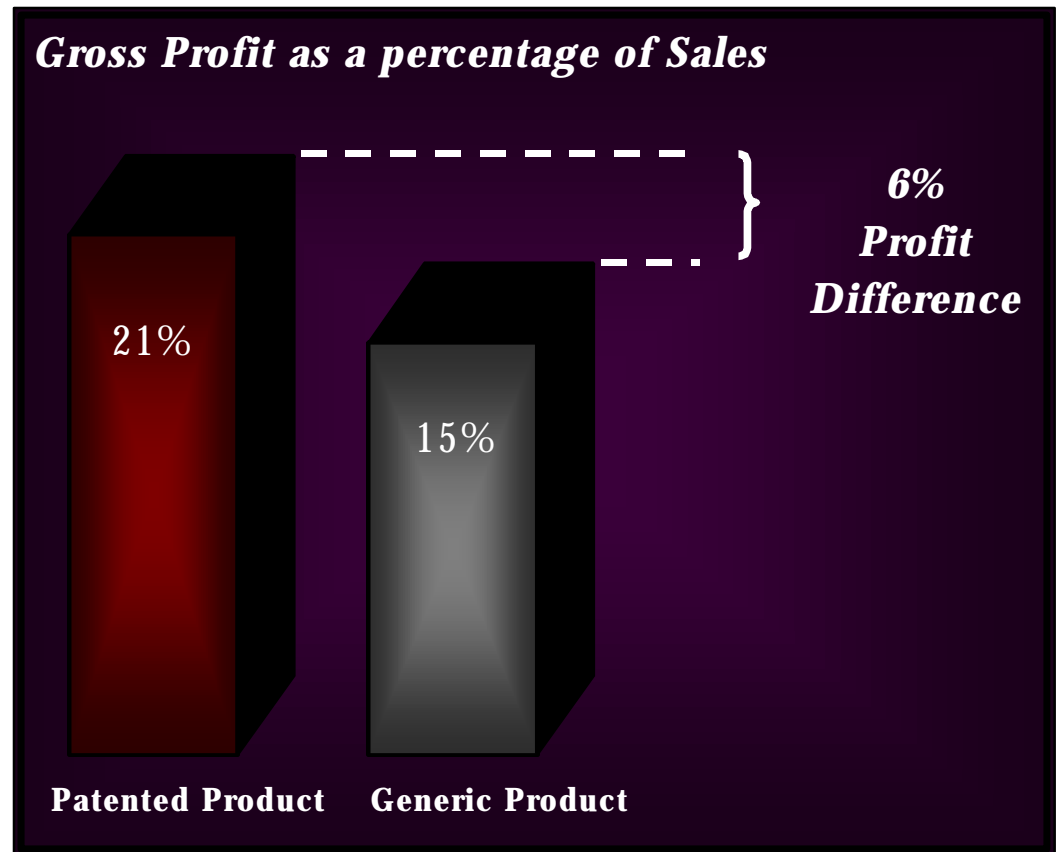
## The theory behind the income approach

A patent can be valued based on the expected incremental cash flow it provides.

### The patent may allow you to:

- Charge a higher price,
- Produce at lower cost,
- Increase existing sales, or
- Develop a new market.

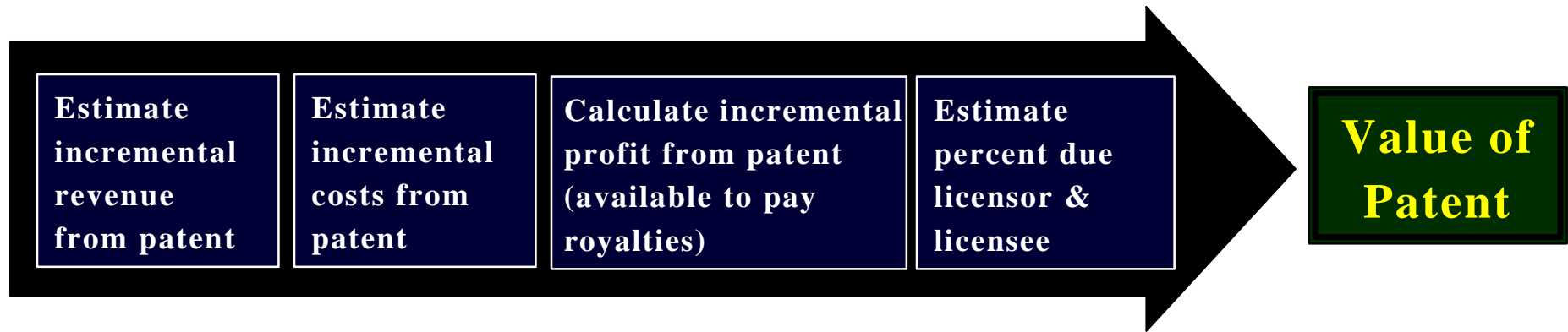
*These benefits can be quantified!*



## Income approach – premium profits

The premium profits approach involves estimating the future incremental cash flow stream attributable to the subject patent.

This cash flow is adjusted and discounted to reflect the contribution of licensee and licensor and the risk associated with commercializing the patented technology.



## **Factors that affect a patent's value**

- ✓ The enforceability of the patent
- ✓ The potential to design around the patent
- ✓ The size of the market
- ✓ The terms of the license (e.g. exclusive vs. non-exclusive)
- ✓ Add-on or “convoyed” sales
- ✓ Typical royalty rates in the industry
- ✓ Competing technology
- ✓ Complementary technology
- ✓ The speed of adoption for the technology

## Licensing considerations

**A comprehensive valuation based on the incremental value of the Patent can provide tremendous benefit to both the licensor and licensee during the negotiation.**

- It provides the parties with advanced knowledge about the industry and market,
- It provides a framework to structure the negotiations,
- It helps prepare for the negotiation by identifying the potential sticking points.

**Relying solely on standard industry royalty rates may result in a rate that does not reflect the benefit provided by the patent.**

- If the standard rate is too low - the licensor may receive too little.
- If the standard rate is too high - the licensing deal may not be completed.
- Industry royalty rates may consider cross-licensing arrangements and “bundled” assets.



## Summary

- Obtaining a patent is an expensive process. There are both positive and negative aspects of obtaining a patent.
- Patents create value by allowing their owner to exclude the competition from using the invention and create the potential for incremental profits through licensing.
- Assessing the benefits associated with the patent should be an integral component of the decision to file a patent.
- The primary factors that should be considered when valuing a patent are: the cost and feasibility of designing around the patent (cost approach), sales of comparable patents (market approach) and the expected future cash flow generated by the patent (income approach).
- A comprehensive valuation prior to the negotiation will benefit to both the licensor and licensee. Simply relying on standard industry royalty rates is a common mistake in valuing patents.

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# Appendix



## Appendix: Income Approach Example

	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>Total</u>
<b>Incremental Revenue</b>	\$ 250	\$ 350	\$ 400	\$ 425	\$ 1,425
<b>Incremental Expenses</b>	<u>\$ 135</u>	<u>\$ 195</u>	<u>\$ 265</u>	<u>\$ 325</u>	<u>\$ 920</u>
<b>Incremental Profit</b>	\$ 115	\$ 155	\$ 135	\$ 100	<b>\$ 505</b>
<b>Discounted Profit</b> <b>15%</b>	\$ 81	\$ 95	\$ 72	\$ 46	\$ 294
<b>Licensee's Percentage</b>	25%	25%	25%	25%	25%
<b>Licensee's Share</b>	\$ 20.3	\$ 23.8	\$ 18.0	\$ 11.6	<b>\$ 73.6</b>