How Do I Screen My Employee's Invention Before Deciding on a Patent?

This Patent Stuff and My Semiconductor Business – Part 16

Welcome to this post about patents and chips. Not a lot has been written about this combination, but there is a lot to know, especially for the innovators and entrepreneurs themselves. In this three-weekly series, I talk about various aspects, from my dual points of view of a patent agent and a semiconductor entrepreneur. If you like the article and read it on LinkedIn, give it a thumbs up, and/or click on Follow. If you like to work with us for your next patent, "contact us" info is on www.icswpatent.com. You can also subscribe/unsubscribe for short email alerts when the next post is available.

This week's post is about a practical issue – not necessarily unique to semiconductor business. How do you even know if this invention is right for a patent, and if a patent is right for this invention? I assume, for this article, that you have an IP protection strategy that indicates that in general patents make sense for your company. If you still need some assistance to define that strategy, you may want to read my earlier posts **TPS02** and **TPS03** – **Developing an IP Protection Strategy for Your Semiconductor Company, parts I and II**. I also assume that you have looked at whether the invention is patentable. If you haven't, a quick ready of my previous post **TPS 15 – How Do I Know If My Invention Is Patentable?** might help.

If your company is large, your strategy may be simply to patent everything but the kitchen sink, and all you care is the number of patents (or meeting this term's patent count goal). In such a case, your screening process is easy. You could end reading here… But if your company has a bit more limited budget, you may want to save by only investing in patents that each individually give you a competitive advantage. This is how, ideally, you would screen.

- How much market will you have if you start exploiting the invention trying to keep it as a trade secret?
- How much market could you lose if a competitor figures out the secret?
- How much is the cost of the patent protection to prevent competitors running away with YOUR invention?

I know, I know… if you could just pull these numbers out of your hat, running a company would be simple. Only the third one can be estimated with some accuracy. The other two depend on market predictions that in the semiconductor industry are often based on a combination of decades of industry experience and having a vision for the industry. But hard numbers for the market size of a future chip hardly ever exist. Asian entrepreneurs call in fortune tellers and perform ceremonial offerings to bend fate their way, often with no less luck than Western entrepreneurs making up market forecasts.

Still, you have to go through the exercise, for the simple purpose of realizing that some inventions are cool, but won't give you any dough. If you don't know whether the invention is going to give you $10M or $100M in extra sales, that's a heck of a lot better than knowing it is going to give you $0M in extra sales.

Yet, in some cases when the invention gives you no extra sales, you may decide to go ahead with a patent. This can be the case in the following situations:

- The product you're ultimately selling is your company itself, with its patent portfolio. It will help the acquiring company make extra sales.
- The invention is part of a portfolio of inventions all around your core technology. Each invention by itself may have limited impact, but together they create solid value.
- Even if you don't put the invention in production, a patent may be defensive and protect you from competitors putting it into production and eating away your market share.

To be able to do any of the above analysis, you need to get the inventor to clearly communicate to you:

- What area of application or technology is the invention related to?
- In what other (broader) areas could the invention be applied?
- Describe (in plain language) the problem that your invention addresses.
- Is the addressed problem publicly recognized in the industry or were you the first to acknowledge it?
- How was the problem dealt with by others, and what were their advantages and disadvantages?
- Describe in plain language how the invention works.
- Who exactly were the inventors (main inventor, who else was in the creative discussion)? Exclude bosses, honorary team members, engineers who only performed measurements or made implementations, and anyone else who did not propose an essential aspect of the invention.
- What advantages and disadvantages does the new solution offer?
- Could a competitor achieve the same advantages in a different way that is not covered by the invention?
- How does the invention give the company a competitive advantage?
- Have you simulated or prototyped your invention? When (start date, end date)?
- Has it been disclosed outside of the company? To whom? When? Was there an NDA to protect it? (The to whom is not important for patent practitioners, only for your internal records. If it was disclosed without NDA to anybody at any point, it is no longer patentable in some or all countries.)
- Will it be published, demonstrated, or otherwise be made public? When?
- Has it been developed under a government grant or in collaboration with a government entity?
- Does it require a special foundry process to produce the invention?
- Which competitors and foundries are capable of producing the invention?

While the market impact of the invention may be better judged by your sales and marketing team, clear input from your inventor on all the technical (and some disclosure) aspects above is key.

With the answers to the above questions, even if not complete, you should be in a position where you can make a reasonable judgment on go or no go for the patenting process. It is reasonable if you say that it looks good, but now you

want somebody else to look at it and confirm your thoughts. Your patent practitioner may ask most of the same questions above (I wouldn't want to know your customer names, though), and should be able to formulate an informed opinion based on the answers. If the patent practitioner is new to you, you may ask for an NDA. If you don't ask for an NDA, the practitioner is still held to confidentiality by law. Violating it will cost him or her the license to practice, so problems are extremely rare.

Upcoming:

17. A prior art search before filing the application
18. Should I pay extra to get the patent faster?
19. How Many of Those Patent Office Actions Should I Budget For?
20. My Company is Located in Brazil. How Do I Manage Patenting Worldwide?

Published so far (find the articles on www.icswpatent.com or #ThisPatentStuff):

1. So You Got This Great Idea That Will Wipe Out Competition. Now What?
2. Developing an IP Protection Strategy for Your Semiconductor Company – PART I
3. Developing an IP Protection Strategy for Your Semiconductor Company – PART II
4. In What Countries Should I Patent, Anyway?
5. Choosing the Right Patent Person for Your Inventions
6. How is a Chip or Firmware Patent Different than Other Patents? What About a Software Patent?
7. Woohoo! I Invented a Huge Improvement over My Competitor's Invention!
8. I'll Be A Billionaire Soon Enough. But Now I'll Just Buy This Book on Patent Writing on thriftbooks.com.
9. My CTO Can't Explain His Invention to Me. But He Is the Smartest Guy in the World.
10. Should I Do a Provisional, Non-Provisional, Or a PCT?
11. What Makes and Inventor, and How Can I Stimulate Innovation?
12. My Invention is Vital for My Business Plan. But I Don't Have Much Money Yet. How Can I Save?
13. I Want to Protect It Now, But Am Still Working Out Architecture Details. Can I Add Those Later?
14. I Want to Use an FPGA Before an ASIC. Can It Be One Patent?
15. How Do I Know If My Invention Is Patentable?
16. How do I screen my employee's invention before deciding on a patent?

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