

## TOM MOXON - V.P OF ENGINEERING RIM SEMICONDUCTOR

INTERVIEW 10/23/06

**Tick tock:** As I reviewed your website

<http://www.moxon.com/2001/11/1/about/projects.html>

You are obviously very accomplished in IC design. Besides founding Moxon Design, you have designed integrated circuits and developed design teams for a number of client companies, including Cray Research, Adobe Systems, Hewlett Packard, Silicon Graphics, Rohm, and Hyundai Electronics.

In addition, you have authored numerous articles for EE Times, the electronics newspaper of record, which is touted to be a "must read" for over 150,000 design and development engineers worldwide each week and you sit on the editorial board of Chip Design Magazine. I suppose your highest professional honor is that, because of your accomplishments and respect within the industry, you teach other engineers how to design Integrated circuits.

1. Tell us about your background and interests?

Growing up on Long Island, New York - I've always wanted to be an engineer, and studied electronics in high school. My 1973 Long Island Math Fair paper was "Using Boolean Algebra to design and simplify Electronic Digital Logic Circuitry". I was fortunate to have very dedicated teachers, who helped me a great deal. And it's one of the reasons I enjoy teaching others.

When I graduated college I moved to San Jose, CA - as "Silicon Valley" was THE place for a young engineer to practice his trade. It was an amazing place to sit in almost any cafe, and hear people talking about chips, software, and startups. I worked there for almost two decades before moving north to Portland, OR.

Portland is a unique place, and after several visits, my family decided that we wanted to move here. My family enjoys bicycle riding, and Portland has a very active bicycle community and many good bike lanes throughout the city. Since moving here I've become very interested in recumbent bicycles, and have been working with several people in the Portland bicycle community on electric bicycles and alternative transportation.

2. Highlight some of the companies/products you have helped develop?

Most technical products these days take a significant team to develop them. A new chip design typically has dozens of engineers and programmers working on it.

One product I was particularly proud of was the EMU Systems Emulator 2, a digital sampling keyboard instrument. Dave Rossum was the lead designer, a truly brilliant engineer and he came up with most of the design. But I helped to design a new sampling replay circuit, based on a new microcode concept. It was revolutionary in the amount of memory it saved for sound samples. In 1984, that was a big deal to keep the cost down.

<http://www.emulatorarchive.com/assets/PDF/Emulator%20II%20Development.pdf>

Another company I helped to start was Virtual Imaging. I helped to develop the five ASIC chips that were the heart of the Image Processing Engine used to process Medical Images for CAT scan and Ultrasound machines.

Most recently, I was the first employee hired by the founders of Enuclia Semiconductor, a company producing new HDTV chipsets here in Portland.

3. How did you first become acquainted with Rim Semiconductor?

The engineering community in Portland is small enough that many of the people know each other, or have worked together before. One of my ASIC vendors mentioned that

Rim Semiconductor had an interesting new technology, and I should go speak with them about it. So I gave Brad Ketch, their CEO a call. Brad was very enthusiastic about the prospects for the company, and I know that I'd enjoy working with him on it.

4. Why would a man with your credentials and accomplishments join the Rim Semiconductor team full time?

I think that what Rim Semi is doing is visionary and exciting. This company is solving big-time, important problems, and I thought that I could lend a hand.

Specifically, they had this terrific team of outsourced developers at HelloSoft to implement their technology. I could see that an internal team could do an even better job, and they really needed someone experienced to lead that internal team. I knew that I could attract the best talent in the business. I had just built a large engineering team for Enuclia Semiconductor, and I knew that I could build another team for Rim. It was what they needed to take them to the next level in their product development plans, and I am glad to lead it.

6. How difficult will it be to infringe on Rim Semiconductor patents?

Rim is developing a solid patent base, and with the 1021 Technologies acquisition, has even more patents granted and in process. Patents can be useful in both offense, and in defense. So it's not just a matter of protecting against infringement, it's also about defense from other companies working in our space as well.

7. We see the term ASSC, ASSP or ASIC; which one correctly defines Rim Semiconductor technology?

Well, none actually.

FPGA, DSP, ASSC, ASSP or ASIC are methods used to implement a technology, and the Rim Semi IPSL technology could be implemented using any of those methods. And I expect that we will have several different implementations over time, the first being the FPGA implementation.

12. How difficult in your opinion will it be to develop a competing product?

There are many competing technologies, xDSL, Cable, Fiber and each of them has their strengths and weaknesses. However for copper wireline, I believe the Rim Semi IPSL technology is superior, and is suitably protected with patents.

18. Companies like Alcatel and Microsoft are projecting a worldwide explosion in IPTV deployment within the next 4-5 years (100 million IPTV users by 2010). Can you see that happening without Rim's technology?

Not in a cost effective way, no. Much of the current IPTV deployment is in standard definition format, and not yet in HDTV. So we need to be careful about our terms in discussion. Rim's IPSL technology will be a key enabler of HD-IPTV.

Hello all:

Here's a link I stumbled across researching the AT&T/Rim connection.:  
<http://www.uverseusers.com/forum/viewtopic.php?t=136> By following it you should be first hand information on how the AT&T HD trials are going in Houston.

Regard

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