



## **PETER SALMON**

Peter C. Salmon, LLC

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**Engineering Consulting    Litigation Support**

## **CAREER PROFILE**

Broad operating experience in senior technical roles at Fairchild, Intel, ESL/TRW, GTE, i-BLADES, and several startup companies spanning the semiconductor, printing, defense, and mobile device industries. Lead author of 23 issued patents, including foundational patents in thermal and electrostatic printing, electronic packaging, system functional testing, and magnetically coupled mobile devices.

## **EXPERIENCE**

- Semiconductors and Electronic Packaging: Designed multiple custom integrated circuits, hybrid assemblies, assembly methods, and manufacturing processes.
- Litigation support: Founder and Ex Co-chair of the Intellectual Property Special Interest Group (SIG) at the IEEE Consultants' Network of Silicon Valley, CNSV. Member of Thomson Reuters Expert Witness Group, IMS ExpertServices, National Expert Witness Network, and TAEUS Expert Witness Group. Litigation support, patent evaluation, product tear-down experience, validity and infringement analysis, claim charts, expert reports.

## **WORK HISTORY**

7/2001 – Present

Peter C. Salmon, LLC, dba Salmon Engineering and as Magnetic Coupling Devices  
Engineering Consultant

- Electrical/mechanical engineering consultant
- Consumer and industrial product development
- Litigation support, expert witness and technical due diligence

10/2010 – Present

i-BLADES, Inc. (Formerly Sagalio, Inc. and iBlaidz, Inc.)

Co-Founder and Board Member

- Developing new approaches and methods for customizing mobile devices, especially blade components having special-purpose functionality. These are assembled onto phones using "snap on" connectivity.
- CTO from 10/2010 to 9/2014

7/2007 – Present

Salmon Technologies, LLC

Co-Founder and Vice President

- Invented a new concept for electrostatic motors and generators
- Principal Investigator on a funded SBIR project comprising research and development of a compact drill motor
- Created a portfolio of patents around semiconductor packaging, leveraging the use of copper
- Awarded a foundational patent for system testing using "tester on board".

11/1997 – 6/2001

The Salmon Group, LLC

Co-Founder and CTO

- Invented and partially developed Solid State Printing, SSP, a new method for high performance digital printing that employs voltage traveling wave particle conveyors and eliminates the optical subsystems of existing laser printers. Designed custom integrated circuits for the print heads.

6/1991 - 11/1997

TRW

Senior Staff Engineer - Systems

- Led the Engineering Automation Group
- Developed processes for requirements management and thread modeling
- Co-founded and chaired a working group called Model Driven System Design under INCOSE, the International Council of System Engineers
- Systems engineer on several Reconnaissance Systems

- Generated multiple proposals and system specifications

7/1989 - 6/1991

GTE Government Systems

Section Head

- Managed Reconnaissance Systems Group of 13 engineers
- Co-developed a behavioral model for a \$100M reconnaissance system and used it to drive the system software architecture
- Active in risk management training, OOD, CORBA

6/1986 - 7/1989

ESL, a subsidiary of TRW

Senior Member of the Technical Staff

- Performed in various technical roles such as Systems Engineer and Technical Director on programs from \$12M to \$23M
- Wrote highly regarded white paper on Search System Performance

4/1984 - 5/1986

Source III

VP Business Development

- Developed library of standard cells for ASIC development
- Negotiated foundry agreements with 7 wafer manufacturers
- Wrote manual for first-time users of cell-based ASIC tools

9/1979 - 2/1984

Santek

Co-founder & VP Engineering

- Developed and patented new thermal printer with integrated dot-driver ICs
- Designed and developed several full-custom ICs
- Negotiated technical aspects of a license agreement with Kyocera

4/1974 - 8/1979

Intel

Staff Engineer

- Developed support chips for the 8080 microprocessor family
- Group leader for engine control circuits
- Developed and patented novel concept for video games
- Taught graduate electronics course at Santa Clara university

6/1971 - 4/1974

Fairchild Semiconductor

Chip Design Engineer

- Logic and circuit designer for several calculator chips

## **EDUCATION**

1972 Northeastern University, Boston  
Electrical Engineer, a professional degree  
Major: Device Physics; Minor: Materials Science  
1969 Northeastern University, Boston  
Master of Science in Electrical Engineering  
1967 Auckland University, New Zealand  
Bachelor of Electrical Engineering

## **AFFILIATIONS**

- Institute of Electrical and Electronic Engineers (IEEE), CPMT, CNSV & CE chapters, Life Member
- IEEE CNSV, Consultant's Network of Silicon Valley, Ex board member
- Thomson Reuters Expert Witness Services
- IMS ExpertServices
- NEWN, National Expert Witness Network
- TAEUS, Expert Witness Group
- ExpertPages

## **PRESENTATIONS & PUBLICATIONS**

- *MOBILE BOT SWARMS - CLOSER THAN YOU MIGHT THINK!*, feature print article in IEEE Consumer Electronics, January 2015.
- *PATENT AND INVENTION STRATEGIES - GOOD WAYS TO SPEND YOUR TIME AND MONEY*, a half-day webinar presented by IEEE- CNSV, September 17, 2010.
- *PATENT LANDSCAPE ANALYSIS, SERVERS AND DATA CENTERS*, white paper, June, 2009, updated June 2010.
- *FUZE ELECTRONICS MINIATURIZATION*, unpublished white paper, March, 2010.
- *MAGNAVOX AND INTEL: AN ODYSSEY*, co-authored with Stan Mazor, IEEE Annals of the History of Computing, September, 2009.
- *SOLID STATE PRINTING: A NEW HIGH-SPEED PRINTING TECHNOLOGY*, The Hard-Copy Observer, January, 2009.
- *SOLDER-FREE CONNECTORS USING BUCKLED PILLARS*, feature print article, The MEPTEC Report, December, 2008.
- *SOLDER-FREE CONNECTORS USING BUCKLED PILLARS*, web article, Advanced Packaging, September 23, 2008, [http://ap.pennnet.com/articles/article\\_display.cfm?ARTICLE\\_ID=339446](http://ap.pennnet.com/articles/article_display.cfm?ARTICLE_ID=339446)

- *HIGH PERFORMANCE MODULES ON COPPER SUBSTRATES: NEXT GENERATION PACKAGING FOR SERVERS AND SUPERCOMPUTERS*, IEEE CPMT Dinner Meeting, Sunnyvale, California, May 14, 2008.
- *HIGH PERFORMANCE MODULES ON COPPER SUBSTRATES*: Meptec's 4<sup>th</sup> Annual conference: The Heat is On, Sunnyvale, California, February 28, 2008.
- *COPPER PANEL FABRICATION AND STACKING CONCEPT FOR VLP FB DIMMS*, 3<sup>rd</sup> International Wafer Level Packaging Conference, San Jose California, Nov. 1-3, 2006.
- *COPPER PILLAR WELL METHODOLOGY AND IMPLEMENTATION IN A VLP FB DIMM*, 2006 KGD Packaging & Test Workshop, Napa California, Sept. 10-13, 2006
- *THE WORLD THROUGH THE EYES OF AN INVENTOR*, IEEE CNSV Dinner Meeting, Sunnyvale, California, April 18, 2006.
- *REPAIRABLE 3D SEMICONDUCTOR SUBSYSTEM\**, 2<sup>nd</sup> International Wafer Level Packaging Conference, San Jose California, Nov. 3-4, 2005.
- *NOVEL SiP DESIGN CONCEPT: STACKED COPPER BGA*, 1<sup>st</sup> International Wafer Level Packaging Conference, San Jose California, Oct. 10-12, 2004.
- *FLIP CHIP CONNECTIONS USING BUMPS, WELLS, AND IMPRINTING*, IPC Printed Circuits Expo, Apex, and the Designer's Summit, Anaheim California, Feb. 24-26, 2004.
- *ADVANCED SYSTEM PACKAGING METHOD*, 4<sup>th</sup> International Symposium on Quality Electronic Design, IEEE, San Jose California, Mar. 24-27, 2003.
- *CHIP ON FLEX WITH 5-MICRON FEATURES*, Proceedings of SPIE, Micromachining and Microfabrication Process Technology VIII, San Jose California, Jan. 27-29, 2003.

\* Best in Conference award.

## ISSUED PATENTS

NO.	US Patent	
23	8,922,511	Display Cartridge, Systems and Devices
22	8,798,675	System of Stacked Devices
21	7,586,747	Scalable Subsystem having Integrated Cooling Channels
20	7,537,107	Tiled Construction of Layered Materials
19	7,505,862	Apparatus and Method for Testing Electronic Systems
18	7,427,809	Repairable three-dimensional semiconductor subsystem
17	7,415,289	Apparatus and method for deploying an information retrieval system
16	7,408,258	Interconnection circuit and electronic module using same
15	7,297,572	Fabrication method for electronic system modules
14	7,254,024	Cooling Apparatus and Method
13	7,163,830	Method for temporarily engaging electronic component for test
12	6,927,471	Electronic system modules and method of fabrication
11	6,881,609	Component connections using bumps and wells
10	6,309,049	Printing apparatus and method for imaging charged toner particles using direct writing methods
9	5,400,062	Electrostatic printing apparatus and method
8	5,287,127	Electrostatic printing apparatus and method
7	5,153,617	Digitally controlled method and apparatus for delivering toners to substrates
6	5,030,976	Electrodielectric printing apparatus and process
5	RE32,897	Thermal print head
4	4,777,500	Electrostatic color printer
3	4,733,256	Electrostatic color printer
2	4,259,676	Thermal print head
1	4,169,262	Video display circuit for games, or the like

## CASE HISTORY

Law Firm	Engagement	Case	Disposition
DLA Piper	Ricoh Company, Ltd. v. Oki Data Corporation Validity analysis, representing Ricoh as plaintiff. Expert report, deposition. Electrophotographic printing technology.	Case number 1:09-cv-00694-SLR-MPT	Settled late 2011
Taeus International	Applied the Taeusworks patent evaluation methodology to four US patents. Consulted in international teleconference involving participants from China, Taiwan, and several US offices. Cell phone packaging technology for power amplifiers.	Taeus project number 10-ATV001-000187.	Evaluations completed and report submitted, October 2010.
Howrey	Litigation support regarding infringement. 94 Intel patents analyzed. Purchased potentially infringing products including TV set, computer monitor, cell phone and industrial display. Performed tear down analysis and delivered a test report. Liquid Crystal Display (LCD) technology.	N/A	Case settled around September 2007.
Bragalone Conroy	Plaintiff's validity expert. HSM PORTFOLIO LLC AND TECHNOLOGY PROPERTIES LIMITED LLC, <i>Plaintiffs</i> , v. ELPIDA MEMORY, INC., ET AL., <i>Defendants</i> .	C.A. No. 1:11-cv-00770-RGA	Expert reports and depositions completed

## **RECOMMENDATIONS**

"Peter did a great job analyzing a large portfolio of LCD related patents and evaluating infringement against a similarly large LCD product line. His work was thorough and timely, and his expertise was invaluable."

Michael Stimson, attorney, Howry LLP, June 28, 2008

"I worked with Peter on a fast paced very complex project involving coordination with another firm as well. Peter delivered on time, putting in additional hours of research on his own to make sure the project was a success."

Glenn Wheeler, President, Taus International, October 5, 2010

"Peter Salmon is extremely talented from the aspects of both technology development and the creation of the associated Intellectual Property/Patents. Peter has invented very innovative and elegant solutions in a variety of applications ranging from semiconductor packaging to printing to motors. He gave a very interesting presentation at IEEE-CNSV in 2006 on the process of inventing new technology. I highly recommend Peter Salmon."

Kim Parnell, Principal and Founder, PEC-Parnell Engineering & Consulting, May 11, 2008.