

EXHIBIT 1

Brian Von Herzen, Ph.D.

Expertise

- FPGA Architecture and Applications
 - Network Hardware Architecture
 - Video & Audio Compression
 - ASIC Design
 - Software Engineering
 - Signal Processing
 - D/A & A/D Converters
 - Image Processing/Computer Graphics
 - PCI Express Architecture
 - PLD Technology
 - Video Codec Design
 - Hardware Engineering
 - 6G and 10G networking
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Professional Summary

From: 1993 Rapid Prototypes, Inc.
To: Present Carson City, NV
Position: CEO

Rapid Prototypes provides turnkey electronic product design services, including commercial product specifications and fully functional engineering product prototypes frequently using programmable logic devices. Rapid Prototypes are experts in the electronic engineering technologies to minimize time to market for new electronic products in networking, consumer electronics and other commercial products. They also develop the world's fastest commercial FPGA applications. Clients have included:

- Xilinx, Inc.—Representation at OIF, NPF, IEEE and RapidIO—Chairman of the Interoperability Working Group of the Optical Internetworking Forum, 2003-2007 responsible for industry demonstration of 10Gb networking interfaces
- Woods Hole Oceanographic Institution
- The Climate Foundation
- Bright Energy Storage Technologies, LLP
- Guzik Technical Enterprises
- Alpha Touch, Inc.
- DRC Computers
- Walt Disney Feature Animation
- Syntax Brilliant
- Proview
- Amtran

- Vizio
- Taiwan Kolin Co. Ltd.
- Polaroid
- TPV Technology Ltd.
- Top Victory Electronics
- Envision Peripherals
- International Reliance Corp
- Sakura Networks, Inc.
- Silicon Informatics, Inc.
- Silicon Valley Expert Witness Group
- Andes Networks
- Data Transit
- Core Capital
- Gerson Lehrman Group
- Impossible Pictures, Ltd.
- Hoffman and Zur
- Keyeye
- Magnalynx
- Mercury Computer
- Nvidia
- Specific Magic
- Hi/fn
- ViaSat
- Quicksilver
- Zebra Imaging
- Rockwell International Corporation
- California Institute of Technology
- Microsoft Corporation
- Intel
- Synaptics, Inc.
- General Dynamics Corporation
- AMCC/3Ware
- Interval Research Corporation
- Enact Products, Inc.
- MediaLink Technologies

Design achievements include:

- Sparse Chevron™ patent pending pin configuration for Xilinx Virtex-4.
- Demonstration of 10Gb/s optical and copper serial links between Xilinx and Altera FPGA's and ASSP/ASIC devices including AMCC, Vitesse, NEC, Intel, Broadcom, PMC etc.
- SDRAM IP Cores for Xilinx FPGA's, a high performance SDRAM controller for the Xilinx Virtex family of FPGA's.
- A FastRAM development board designed for high memory

bandwidth

- Developed a high-speed FPGA application, a fully parallel cross-correlator. (<http://www.fpga.com/papers/corr256.pdf>)
- Architected, designed, developed, tested and demonstrated a 2K x 2K, 144 Hz real-time composition graphics engine. Created a 1-GHz analog video output daughter card.
- Designed and developed a 60-Hz vector quantization video codec ASIC using FPGA rapid product prototyping techniques.
- Architected and built a reconfigurable computing machine using a two-dimensional toroidal array of 32 FPGA and static memory devices for Interval Research Corporation. (<http://www.fpga.com/papers/stereovis.pdf>)
- Built a 10-GIPS depth-from-stereo video processor using the reconfigurable computing machine.

From: 1992 Synaptics, Inc.
To: 1993 San Jose, CA
Position: Applications Research Manager

Research in video compression. Achievements include:

- Developed digital neural networks using FPGA's.
- Commercial applications of image processing.
- Analyzed VLSI CCD devices for MPEG motion compensation.

From: 1988 Caltech Submillimeter Observatory
To: 1992 Hilo, HI
Position: Design Project Manager

- Obtained NSF grant for VLSI correlator development.
- Produced a 250 MHz micropipelined cross-correlator in 1.2 μ m CMOS.
- Designed and developed a 2 GHz digital spectrometer using correlators.
- Created a 2 GHz GaAs A/D converter.

From: 1986 Pixar, Inc.
To: 1988 San Rafael, CA
Position: Systems Analyst
Developed an image processing architecture for the Pixar Image Computer

From: 1982 Dolby Laboratories
To: 1986 San Francisco, CA
Position: Research and Development Engineer
Developed a digital audio compression and decompression system.

From: 1980 Hewlett-Packard Laboratories
To: 1981 Palo Alto, CA
Position: Research & Development Engineer
Developed an electron-beam annealing process for MOSFET devices.

Litigation Support

Date: 2011 DLA Piper
Case Freescall v. Zoran
Project: Dr. Von Herzen was retained as an expert witness in this case, plans to provide written expert reports, depositions and testimony in this ITC case.
Status: Open

Date: 2010 Weil, Gotchal, Manges
Case Elan vs. Apple
Project: Dr. Von Herzen was retained as an expert witness in this case, provided written expert reports, was deposed, and prepared to testify in this Federal case in San Francisco.
Status: Closed

Date: 2009 Winston and Straun
Case Opti vs. AMD et al.
Project: Dr. Von Herzen was retained as an expert witness in this case, provided written expert reports, depositions, and prepared to testify before the case settled.
Status: Closed

Date: 2009 Ropes and Gray.
Case Realtime Data vs. PACKETEER, INC.,
 BLUE COAT SYSTEMS, INC., CITRIX SYSTEMS, INC.,
 EXPAND NETWORKS, INC., F5 NETWORKS, INC., 7-
 ELEVEN, INC., ABM INDUSTRIES, INC., ABM JANITORIAL
 SERVICES – SOUTH CENTRAL, INC., AVERITT
 EXPRESS, INC., BUILD-A-BEAR WORKSHOP, INC., DHL
 EXPRESS (USA), INC., INTERSTATE BATTERY SYSTEM OF
 AMERICA, INC., AND O'REILLY AUTOMOTIVE, INC.
Project: Dr. Von Herzen was retained as an expert witness in this case,

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provided written expert reports, was deposed, plans to testify and be cross examined in this Federal case in the East District of Texas.

Status: Open

Date: 2008 O'Melveny and Myers, Ropes and Gray, Sidley Austin, etc.
Case Funai vs. TPV, Polaroid, Proview, Amtran, Syntax Brillian
Project: Dr. Von Herzen was retained as an expert witness in this case, provided written expert reports, was deposed, testified and was cross examined in this ITC case before Judge Carl C. Charneski.
Status: Closed

Date: 2006 Weil, Gotshal & Manges LLP
Case Apple Computer v. Burst
Project: Dr. Von Herzen has been retained as an expert witness in this case.
Status: Closed

Date: 2004 Sidley Austin
Case Burst v. Microsoft
Project: Dr. Von Herzen testified and was deposed with regard to streaming video technology.
Status: Closed

Date: 2002 United States District Court, Fresno, CA
Case LectroLarm v. Pelco
Project: Court appointed Master. Provided written expert report and technical advice to the court on a video technology patent. Testified and was cross-examined on expert report and related topics.
Status: Closed

Date: 2002 Alschuler, Crossman, Stein & Kahan, Arbitration, New York, NY
Project: nVidia v. Microsoft
Dr. Von Herzen developed several expert reports and was deposed with regard to ASIC technology and graphics processors.
Status: Closed

Date: 2001 Fish and Richardson
Case Intel v. Broadcom
Project: Dr. Von Herzen was retained as the primary expert witness, was deposed, testified and cross-examined at both Markman hearings and at jury trial in Federal District Court in Wilmington, DE. The case involved MPEG2 technology, video compression and encoders, integrated circuit design, computer graphics and video.
Status: Closed

Date: 1997-98 Gray Cary Ware & Freidenrich LLP

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Case Mentor Graphics vs. Quickturn– ITC Case, Washington, DC
 Project: This case was an ITC patent case regarding electronic device emulators. Dr. Von Herzen provided written direct testimony, was deposed as an expert and testified before the ITC judge Paul Luckern in this case.
 Status: Closed

Patents

Patent Number	Date Issued	Title
7,608,931	2009	Interconnect array formed at least in part with repeated application of an interconnect pattern
7,567,702	2009	Data processing system and method
7,501,341	2009	Interconnect array formed at least in part with repeated application of an interconnect pattern
7,312,773	2007	Illuminated Wearable Ornament
7,066,023	2006	Distributed sensor array for fluid contaminant monitoring
6,456,737	2002	Data processing system and method
6,353,334	2002	Circuit for converting a logic signal on an output node to a pair of low-voltage differential signals
6,348,775	2002	Drive wave form synchronization for induction motors
6,222,885	2001	Video codec semiconductor chip
6,215,898	2001	Data processing system and method
5,924,115	1999	Hierarchical memory architecture for a programmable integrated circuit having an interconnect structure connected in a tree configuration
5,451,890	1995	Gallium arsenide source follower FET logic family with diodes for preventing leakage currents

Eight additional patents pending.

Publications

Von Herzen, Brian, "Signal Processing at 250 MHz using High-Performance FPGA's" *IEEE Transactions on VLSI*, Volume: 6 Issue 2, June 1998, Page(s): 238-246

Woodfill, John and Brian Von Herzen, "Real-Time Stereo Vision on the PARTS Reconfigurable Computer," *IEEE FPGA's for Custom Computing Machines*, April 1997, Napa, CA (FCCM97).

Von Herzen, Brian, "VLSI Partitioning of a 2 GHz Digital Spectrometer," *IEEE Journal of Solid-State Circuits*, Volume 25, Number 5, May 1991.

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Von Herzen, Brian, Alan Barr and Harold Zatz, "Geometric Collisions for Time-Dependent Parametric Surfaces," *Computer Graphics*, Vol. 21, No. 3 August, 1990.

Von Herzen, Brian and Alan Barr, "Accurate Triangulations of Deformed, Intersecting Parametric Surfaces," *Computer Graphics*, Vol. 21, No. 3, 1987.

Barr, Alan, Brian Von Herzen and Ronen Barzel, "Computational Techniques for the Self-Assembly of Large Space Structures," *Eighth Princeton Conference on Space Manufacturing*, Princeton, NJ, May 1987.

Kajiya, Jim and Brian Von Herzen, "Ray Tracing Volume Densities," *Computer Graphics*, Vol. 18, No. 3, July 1984.

Von Herzen, Brian, Ted Kamins and Cliff Drowley, "A Technique for Profiling a Laser Beam and its Application to the Recrystallization of Polysilicon Films," *Journal of the Electrochemical Society*, Vol. 128, No. 12, December 1981.

Kamins, Ted and Brian Von Herzen, "MOSFET's in Electron-Beam Recrystallized Polysilicon," *IEEE Electron Device Letters*, Vol. EDL-2, No. 12, December 1981.

Education

<u>Year</u>	<u>College/University</u>	<u>Degree</u>
1988	Caltech, Pasadena, CA	Ph.D., Computer Graphics & VLSI Hertz Foundation Fellowship
1984	Caltech, Pasadena, CA	M.S., Computer Graphics & VLSI Hertz Foundation Fellowship
1980	Princeton University	AB, Physics, Magna Cum Laude

Professional Associations and Achievements

- Member, IEEE
- Member, Optical Internetworking Forum (OIF, Chair, Interoperability Working Grp.)
- Member, Professional And Technical Consultants Association (PATCA)
- Member, AOPA Pilots Association, PPMEL, SES, IFR
- Languages: Russian & French
- Ross Freeman Nomination for outstanding technical achievement, Xilinx, 2000
- Ross Freeman Award for outstanding technical achievement, Xilinx 2006