JOHN M. WINCN

ADDRESS: P. O. Box 631, Cupertino, CA 95015-0631
Voice: 408-725-0846, Mobile: 408-394-5283
Email: info@cupertinosignal.com Citizenship: United States

MIXED-SIGNAL AND SERIAL I/O (SYSTEM LEVEL, SIGNAL INTEGRITY, SEE BELOW)**:**

Aug 2009 – Sep 2010 **Numetrics Management Systems, Inc.** (Direct contract)
20863 Stevens Creek Blvd., Suite 510, Cupertino, CA 95014
http://www.numetrics.com/homepage/?locale=en_US
Main: 408-351-5800
- Development of time-to-complete estimates for design and development of Mixed-Signal Analog products
- Mature and fine-geometry technology

Apr 2006 – Present **University of California, Santa Cruz**
Baskin School of Engineering, Graduate Research
1156 High St., Santa Cruz, CA 95064-1077
http://www.soe.ucsc.edu/
Voice: 831-459-1035 (no voicemail), Email: jmwincn@soe.ucsc.edu
- Working toward completion of PhD, Optic Data Communication over Polymer fiber
- BiCMOS and CMOS circuit design, Polymer Optic Fiber links
- 1 – 10 GBd Serial line drivers/receivers (Electric-Optic, Optic-Electric)
- National Semiconductor 0.18µm CMOS, 0.25µm and 0.13µm BiCMOS
- Cadence Virtuoso, Agilent ADS, Matlab
- Periodic research reports
- SoE Contact between university and National Semiconductor (now a division of Texas Instruments, Inc.)

Mar 2006 – Jan 2007 **NxP Semiconductors, Inc.** (Direct contract, formerly Philips Semiconductors)
1109 McKay Dr., San Jose, CA 95131-1706
http://www.nxp.com
- Medical systems components
- Cadence Virtuoso, Matlab
- Feasibility, design of Analog I-to-F convertors (X-Ray Detection)
- 0.18µm CMOS

Oct 2001 – Mar 2005 **Toshiba America Electronic Components, Inc.** (through a contract service)
2590 Orchard Parkway, San Jose, CA 95131
Main: 408-526-2400, Fax: 949-526-2410
http://www.toshiba.com/taec
- PCI-X 1, PCI-X 2.0a, 133MHz to 533MHz serial line transceiver cell library
- Cadence Virtuoso, Synopsys Hspice, 90nm CMOS
- Project reports, design review notes, application notes, end-user notes

Nov 1998 – Oct 1999 **Transcendata, Inc.** (Serial Optic Transceivers, ceased operation 1999)
1029 Corporation Way, Palo Alto, CA 94303-4305
- Principal Analog Design Engineer
- PAM-5 Optic Serial Data Communication, Preliminary product specification
- Cadence Analog Artist, Matlab
- Target design 0.18µm CMOS, TSMC

Apr 1988 – Jun 1997 **Advanced Micro Devices, Inc.**
Feb 1978 – Sep 1986 One AMD Place, P.O. Box 3453, Sunnyvale, California 94088-3453

Main: 408-749-4000

- Member of Technical Staff, Network Products Division, CMOS Analog Circuit Design
- Voting member, IEEE Computer Society's 802.3 10BaseT Task Force
- 0.35µm and 0.25µm CMOS
- CMOS PLL, CDR, Line drivers, Receivers, 10b ADC, 12b DAC, Opamps, Band-Gap References, Single-Integration Delta-Sigma Modulator
- Hspice, Mentor Design Architect, MathCad
- 200MSPS DAC for 10BaseT/100BaseT
- AM79C98 Twisted-Pair Ethernet Transceiver (TPEX)
- AM79C980 Single-chip Integrated Multiport Repeater for 10BaseT (IMR)
- AM79C900 Serial Interface Adapter (SIA) for Single-chip Integrated Local Area Communications Controller (ILACC)
- AM79C30 “S” Interface Digital Subscriber Controller (DSC), Voice CODEC
- AM7901, AM7905 NMOS Subscriber-Line Audio processing Circuit (SLAC)
- AM7910, AM7911 NMOS Single-chip 1200 Baud FSK modems
- Analog design review notes, Product Engineering notes

Sep 1986 – Apr 1988 **Level One Communications, Inc.** (Now a division of Intel)
105 Lake Forest Way, Folsom, CA 95630

- CCITT (Now ITU) I.430 Line drivers and Receivers (ISDN), using AMI

SYSTEM LEVEL, SIGNAL INTEGRITY, BOARD DESIGN:

Jun 2000 – Oct 2001 **Atoga Systems, Inc.** (DWDM Routers; sold to Arris, Inc., 2003)
49026 Milmont Drive, Fremont, CA 94538, 510-687-9700

- Member of Technical Staff – Hardware Design and Photonics
- OC-48 Line Card development
- Development of WDM line card with fast tunable lasers
- OC-192 product development support
- Sonet-compatible CDR (Proprietary ASIC development work)

Jul 1997 – Nov 1998 **G2 Networks, Inc**. (Storage Area Networks, ceased operation 1999)
16780 Lark Ave., Los Gatos, CA 95032-7646

- Senior Analog Engineer
- Design support, BiCMOS Ser-Des ("Bluejay"), 1.0625GBd OOK (1.25GBaud capable)
- Hspice, Cadence Analog Artist
- In-house contact for Honeywell VCSEL module, TSMC foundry, and outside silicon test

Jun 1975 – Feb 1978 **Applied Technology, Inc.** (Once a division of Litton)
P. O. Box 7012, San Jose, CA 95150-7012

- Design Engineer, Secret Clearance
- 4-Bit 50MSPS Bipolar Flash ADC, for Radar Homing/Warning Receiver
- 1MHz Manchester 1553 line driver, active tri-state output (Hybrid module)

ENGINEERING SOCIETIES:

IEEE Solid-State Circuits
IEEE Signal Processing
IEEE Microwave Theory and Techniques

EDUCATION:

Sep 2007 – Present	**University of California, Santa Cruz** **Baskin School of Engineering** 1156 High St., Santa Cruz, CA 95064-1077
Sep 1972 – Jun 1975	**California Polytechnic University** BSEE, 1975 3801 W. Temple Ave., Pomona, CA 91768-4005

U. S. PATENTS

1. Pseudo-AUI Line Driver and Receiver Cells for Ethernet Applications; J. M. Wincn; No. 5,694,427, Dec 1997
2. High Speed, Low Power CMOS D/A Convertor for Wave Synthesis in Network; J. M. Wincn; No. 5,600,321, Feb 1997
3. High Speed CMOS D/A Convertor for Wave Synthesis in Network; J. M. Wincn; No. 5,592,166, Jan 1997
4. Reversible AUI Port for Ethernet; J. M. Wincn; No. 5,568,515, Oct 1996
5. Bi-Phase Decoder Phase-Lock Loop In CMOS; J. M. Wincn; No. 5,276,716, Jan 1994
6. Method and Apparatus for Squelch Circuit in Network Communication; J. M. Wincn, et. al; No. 5,327,465, Jul 1994
7. Method and Apparatus for CMOS Differential Line Driver Having a Rapid Turnoff; J. M. Wincn; No. 5,263,049, Nov 1993
8. Automatic Polarity Detection and Correction Method and Apparatus; John M. Wincn, et. al; No. 5,257,287, Oct 1993
9. Medium Attachment Unit for Use with Twisted Pair LAN; John M. Wincn, et. al; No. 5,164,960, Nov 1992
10. CMOS-Transistor-Based Digital-to-Analog Converter; J. M. Wincn; No. 4,635,038, Jan 1987
11. Sampling Comparator Circuit for Processing a Differential Input; John M. Wincn, et. al; No. 4,542,308, Sep 1985

COMMUNITY SERVICE

Appointed to Cupertino Telecommunications Commission, City of Cupertino, in Feb 1991 and again in Feb 1995. Served as chairman for three consecutive years.