

Carl Sawtell

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Areas of Expertise:

Power electronics, Power management; Analog IC design; Instrumentation

Experience:

- 2009-2012 **Semtech Corp** (Acquired specific Leadis Assets 02/09)
Principle Design Engineer - designed 20MHz Buck, helped define and design next-generation 'adaptive on-time' control circuits
- 2008-2009 **Leadis Technology, Inc.** (Acquired Acutechnology 12/07)
Sr. Principal Design Engineer - Designed power management for USB keyboard/hub, High freq (>10MHz) switchers
- 2001-2007 **Acutechnology Semiconductor** cofounder, CTO.
Proprietary IC design - precision low cost bipolar devices
Contract Design: CMOS bucks, boosts; BCD 40V/3A Class-D Driver, 5A 1V6 input LDO, voltage references
IC Layout, CAD management, modeling, patent prosecution, etc.
- 1999-2001 **Tripath Technologies Inc.** (Class D audio amp startup)
technology & circuit design for power stages (BCD technologies)
- 1986-1999 **Astec Semiconductor** (Astec(BSR) plc, then Emerson Electric)
Defining, designing IC product line; power supply architecture R&D, semiconductor vendor interface, various leadership roles
- 1982-1986 **Analog Innovation Inc** (2 man contracting firm)
Contract design of custom and second-source ICs
- 1978-1982 **Signetics Corp.** (subsidiary of Philips)
Design of industrial analog ICs (PWM motor drive, relay drivers, etc.)

Patents:

- 7,863,841 Class H Drive
7,800,037 Power Supply Control with Optical Feedback
7,417,879 PFM and current controlled switching regulator (Micrel)
7,345,894 Cascode switch power supply (Acutechnology)
7,221,251 Air Core inductive element on printed circuit board (Acutechnology)
7,071,673 Process Insensitive Voltage Reference (Acutechnology)
7,034,490 Motor Positioning servo Loop using oversampling bitstream DAC (Acutechnology)
6,989,659 Low Dropout voltage regulator using depletion pass transistor (Acutechnology)
6,737,713 Substrate Connection in an integrated circuit (Leadis)
6,614,288 Adaptive Drive Circuit for Zero-voltage and low-voltage switching (Astec)
5,949,225 Adjustable Feedback circuit for adaptive opto drive (Astec)
5,227,672 Digital Clock selection and changeover apparatus (Astec)
5,177,431 Linear Programming circuit for adjustable output power converters (Astec)
5,085,526 Compact programmable temperature detector apparatus (Astec)

Education:

BS, Electronics Engineering, California Polytechnic State University, San Luis Obispo, 1978