

MICHAEL T. MILES

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PROFILE

- ★ Design Engineer with extensive experience in analog, power, and audio electronics.
- ★ Expertise includes:
 - High-performance audio and analog design
 - Linear and switch-mode power supply design
 - Linear and switch-mode power amplifier design
 - Digital control, monitor, and interface design
 - Manufacturing of electronic products
- ★ Creative and open-minded approach has led to numerous design innovations and inventions.
- ★ Self-motivated and energetic; simultaneously detail-oriented and goal-oriented.

CAPABILITIES

- ★ Design of electronic products, circuits, or subsystems including amplifiers, analog signal processing, power amplifiers, power supplies, and transducers.
- ★ Design of control systems and analog interfaces for microprocessor-controlled systems.
- ★ Performance of a wide range of engineering tasks including research, product definition, product development, performance test/analysis, cost analysis, cost reduction, and manufacturing implementation.
- ★ Design of test fixtures and manufacturing test procedures for optimum quality control and verification.
- ★ Listing approvals including pre-qualification and application for NRTL listing (UL/CSA), FCC, and CE declarations of conformity.
- ★ Technical writing and electronic publishing including layout, graphic design, and photography. Creation or editing of brochures, manuals, data sheets, in print or electronic form.
- ★ Use of CAD applications for circuit simulation and analysis, circuit board design, mechanical design, graphic design, manufacturing output, and other related applications. Proficient with TINA/Pspice, Eagle, Cadstar, AutoCAD/IntelliCAD, Corel Draw, Quattro, Excel, MS Office, WordPerfect, Word and more.

PROFESSIONAL EXPERIENCE

PRESIDENT/DESIGNER

Miles Design LC

2009 to PRESENT

Niles, Michigan

- ★ Designed linear and class-D amplifiers, switching power supplies, audio circuits, and a powered loudspeaker system.
- ★ Performed lab testing of power amplifiers, power supplies, and loudspeakers. Resolved issues and recommended cost savings.
- ★ Designed critical printed circuit boards for high performance.
- ★ Provided engineering consulting and design services for Atlas Sound, Fuel Commander, Hose-McCann, Parker-Hannifin, Soundcraft, and thinkofthe.com.

PROFESSIONAL EXPERIENCE (CONTD.)

PRESIDENT/DESIGNER

1993 to 2008

Miles Technology Inc.

Niles, Michigan

- ★ Invented, patented, designed, manufactured, and marketed the Multisonic® stereo imaging system.
- ★ Designed linear and class-D power amplifiers, switching power supplies, mixers, and other products.
- ★ Created and implemented a new topology for a high-efficiency switching power amplifier.
- ★ Designed custom versions of amplifiers for specific customers.
- ★ Created technical and sales literature, advertising designs, and a web site (www.milestech.com).
- ★ Planned and implemented marketing strategies including trade shows, advertising, and sales calls.
- ★ Managed accounting and assured profitability for products and overall operations.
- ★ Provided engineering consulting and design services for Atlas, Community, Crown International, Custom Radio Corp., Cytech Labs, EAW, Electro-Voice, ETS, Hamilton, Hose-McCann, Lor Manufacturing, Pro-Co, and Whirlwind.

CHIEF ENGINEER

1990 to 1998

Cytech Labs Ltd.

Elkhart, Indiana

- ★ Designed the CSL2000 PWM high-power backup inverter system.
- ★ Designed Crown International IQ products (circuits and packaging) including the SMX-6, SEQ-6, MRX-12/24, Drone, and PIP-IQ (these are all computer/network controlled audio and control-system products).
- ★ Provided creative and customer-based product definitions and designs, circuit designs, mechanical designs, documentation, and manufacturing support.
- ★ Contributed significantly toward the expansion and profitability of company operations.

SENIOR PROJECT ENGINEER

1982 to 1989

Electro-Voice, Inc.

Buchanan, Michigan

- ★ Designed the highly-successful DeltaMax® Controllers, the first power-limiting loudspeaker controllers on the market which did not alter frequency response.
- ★ Designed the 2710 graphic equalizer with innovative Constant-Range™ filter design.
- ★ Designed a four-channel compressor/noise gate with a special low-dynamic-distortion detector circuit.
- ★ Designed an RF-immune audio mixer for remote broadcasting, two product ranges of console mixers, three different crossover/equalizer products, and a universal off-line switching power supply.
- ★ Created market and technical analyses, product definitions, electronic designs, and packaging designs.
- ★ Performed competitive product testing/comparison and cost analysis; obtained UL and CSA approval.
- ★ Utilized device modeling/circuit simulation on computer workstations for more efficient design progress.
- ★ Set up the department's first CAD system for schematic capture and PCB layout, created custom component and package libraries, and trained other personnel in effective CAD use.

PROJECT ENGINEER

1980 to 1982

ADM Technology, Inc.

Roseville, Michigan

- ★ Designed modular plug-in components for high-performance custom-designed computer-controlled mixing consoles for broadcast and film mixing.
- ★ Designed various signal-processor, amplifier, and power-supply products.
- ★ Saved the company about \$30K per year by respecifying an audio transformer.

PATENT/PUBLISHED PAPERS

- ★ "Linear-Matrix Audio-Imaging System and Image Analyzer," U.S. Pat. 5,610,986, issued March 11, 1997.
- ★ "An Optimum Linear-Matrix Stereo Imaging System," presented at the 101st Convention, Los Angeles CA, 1996 November, A.E.S. Preprint 4364 (J-4).
- ★ "A Loudspeaker-Electronics System," presented at the 84th Convention, Paris, 1988 March. Also presented at the AES 6th International Conference, Nashville TN, 1988 May, A.E.S. Preprint 2646.
- ★ "Electronic Control of Loudspeaker Systems," Presented at the All Technical Engineered Sound Conference, Montreal, Quebec, Canada, 1988 October.

EDUCATION

GRADUATE STUDY

College of Engineering, The University of Michigan

Ann Arbor, Michigan

College of Engineering, The University of Michigan - Dearborn

Dearborn, Michigan

- ★ Graduate courses in microprocessor software design, digital systems, MSI/LSI design, communication systems, transistor circuit design, network analysis, mathematics, and an independent acoustics project.

BACHELOR OF SCIENCE IN ENGINEERING (ELECTRICAL ENGINEERING)

College of Engineering, The University of Michigan

Ann Arbor, Michigan

- ★ Studied analog and digital circuit design, electroacoustics, microprocessor design, programming, etc.
- ★ Conducted independent projects dealing with acoustics, high-frequency amplifiers, and digital audio.

PROJECT MANAGEMENT SEMINARS

Graduate School of Business Administration, Michigan State University

- ★ "Project Management: Planning, Scheduling, and Control"

Fred Pryor Seminars

- ★ "Management Problems of the Technical Person"

MISCELLANEOUS

- ★ Member of AES and IEEE.
- ★ Presented stereo imaging theory and new technology for the Chicago and Detroit AES Sections.
- ★ Experienced audio/mix engineer and musician.
- ★ Other interests include nature, water sports, tennis, photography, and videography.