

Anthony G.P. Marini, MSEE

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PRESIDENT / PRINCIPAL, dtm Associates

- Accomplished and innovative engineering and technology entrepreneur and business executive with a large, diverse portfolio of consulting clients and projects.
- Established an excellent industry reputation of accomplishment and “can do” attitude for multidisciplinary product developments and projects.
- Creates lasting client relationships while adding 15% year-to-year to the client portfolio and retains clients in long-term relationships.

AREAS OF EXPERTISE

Turnkey Product Development	Project Management
Technical Mentoring	Rad-Hard Design Techniques
Electrical, Mechanical and Thermal Engineering	SPICE Computer Circuit Modeling and Simulation
Electronic Circuit Design	Product Tear Downs and Competitive Analysis
Analog, Digital and Power Electronics	Microprocessors and Logic Design
MCM and Hybrid Technology	Design Reviews and “Sanity Checks”
System Design and Partitioning	Worst Case Electrical Analysis

PROFESSIONAL EXPERIENCE

dtm Associates, Clinton, Massachusetts • 1998-Present

President / Principal / Founder

Serving industry as an independent electronic design consultant; presently servicing a military, industrial and commercial customer base of over 75 clients. Providing a wide variety of services including electronic design, turnkey product development, product tear downs and competitive analysis, power system design, EMC design and remediation, and component/system reliability prediction and analysis.

Major Accomplishments:

- Designed and developed over 100 products presently in high-volume manufacture:
 - a 34kW/100kW/1MW, scalable three phase AC-AC power converter, utilizing proprietary resonant technology for renewable energy applications;
 - many power systems for 1-5kW telecommunications and computer systems;
 - a 7.5kW complete power system (power processing, distribution and board power) for a carrier-class, optical telecommunications router;
 - an automatic, diagnostic charging/ test system for multi-chemistry batteries in the 1 to 50A-hr range;

dtm Associates, President / Principal / Founder (Continued)

- several class K (space) hybrid power microcircuits;
- numerous DC-DC and AC-DC converter designs in the 1-10kW range encompassing buck, flyback, Ćuk and boost topologies, both isolated and non-isolated, for both DC and AC inputs;
- a 0.05°C accurate thermoelectric cooler driver for telecommunications applications;
- several high speed and high-precision data acquisition components and systems (A/D and D/A) for image and sound processing applications.
- Has become trusted technical advisor and resource for client base.
- Maintained client satisfaction and client retention leading to a 75% referral rate from existing customers.
- Expanded service area to include the entire continental United States.

Stratus Computer, Marlborough, Massachusetts • 1989-1998**Senior Hardware Engineer / Consultant**

Responsibilities included the design and development of computer power systems and the reliability/availability analysis for fault-tolerant computer systems, including power, analog and logic design to the component level. Also was responsible for company-wide technical leadership in the areas of EMC and reliability prediction and for the development of high-density hybrid microcircuits for power, analog, logic and mixed-signal applications, from OrCAD/Cadence Allegro schematic design to AutoCAD circuit layout.

Major Accomplishments:

- Served as the company-wide resource for analog and power circuitry reliability and availability prediction and improvement.
- Served as the company-wide technical resource for EMI/RFI immunity. Provided technical consultation to in-house and external customers and provided timely and cost-effective solutions to electrical design and EMC issues.
- Architected, designed and developed a 2kW fault tolerant power system for a low-cost, high-performance computer system. Performed extensive reliability and availability analyses (MTBF, FMEA and FMECA) which determined the final computer system (both logic and power) partitioning and architecture.
- Designed, developed and packaged numerous unique hybrid circuits including DC-DC converters, analog signal processing circuits and microprocessor/logic circuits.
- Designed and developed a low-cost, high-reliability 5kW and 10kW AC/DC power system with a unique battery back-up (UPS) scheme for a mainframe-class computer.
- Researched, specified and procured the equipment (receivers, exercisers) and facilities (labs, chambers) necessary to test to FCC, IEC, Bellcore and ETSI compliance requirements.

Stratus Computer, Senior Hardware Engineer / Consultant (Continued)

- Selected and developed a successful outsourcing partnership with a high-volume, low-cost vendor of computer power supplies.
- Developed several high-efficiency 10-200W DC-DC converter circuits for use as computer board power sources.
- Developed both SPICE- and spreadsheet-based analytical tools for evaluating the performance and efficiency of DC-DC converters and power systems.

Micro Networks Company (A Division of Unitrode Corporation), Worcester, Massachusetts • 1979-1989**Manager - R&D Engineering**

Provided hands-on technical leadership to an R&D Engineering group consisting of several engineers, technicians and CAD designers involved in the design and development of power supply, power control and motion control hybrid microcircuits.

Major Accomplishments:

- Developed over 100 high reliability analog, power and mixed-signal hybrids for major military programs, including linear and switching regulators; power switches; smart power devices; rectifier arrays; motor drivers; motor controllers and power supply controllers.
- Authored numerous data sheets and application notes for power hybrid devices.
- Developed several innovative hermetic power hybrid packages, including the lowest profile hermetic power hybrid DIP package that is still currently available.
- Served as the power hybrid technology resource within the corporation.
- Provided engineering support for a high-volume product line of data acquisition (D/A and A/D) products.
- Developed test and laser trim hardware and software for ATE equipment for thick and thin-film hybrid microcircuits.

EDUCATION**Master of Science, Electrical Engineering**

Worcester Polytechnic Institute, Worcester, Massachusetts

Bachelor of Science, Electrical Engineering

Worcester Polytechnic Institute, Worcester, Massachusetts

OTHER

Member IEEE, 7 Societies and IMAPS