

Bob Rutter

Email: Bob.Rutter@SCSages.com

Office Phone: +1 307 459-1954

Product Engineering, Test, Validation, Application,
Program Management and Engineering Management

Internationally seasoned Engineer and Manager with more than 30 years of experience encompassing a broad range of automotive, aviation, industrial & consumer product developments including product definition, application, validation, package development, test development, product qualification, regulatory certification, program management and manufacturing cost improvement. Demonstrated ability to lead multinational electronic product creation teams successfully from concept and proposal to qualification and production.



Professional Experience

Semiconductor Sages, San Jose, CA 2016 - present

Provide consulting services for Semiconductor development including Product Engineering, Test Development, Package development, Application, Validation and Program Management

Integrated Device Technology, San Jose, CA 2010 - 2015

Director of Analog Test, Product development and Program Management

- Recruited in March 2010 by Senior VP Arman Naghavi to support his efforts to create a new Analog Products Division within IDT from the ground up.
- Created an analog capable Test and Product development team and managed the development and release to production of advanced portable power IC's for battery management, microprocessor power management and wireless power transfer.
- Managed the investigation and application validation, including thermal performance measurement of WLCSP (Wafer Level Chip Scale Package) for APD's wireless power receiver IC's. Confirmed that this package could sustain the wireless receiver's thermal and current requirements and directed the final package qualification and release of these parts into production.
- Moved to Penang, Malaysia in October 2013 for a year long assignment to train and develop the IDT Malaysian engineering team to support the APD analog products.
- On return to San Jose, led APD Program Management, driving Agile Program Control & Tracking for new product development and cost improvement planning for existing products.

Freescale Semiconductor, Tempe, AZ 2009-2010

Senior Systems/Applications Engineer for Electric Vehicle Drive Systems

- Investigated non-silicon Semiconductor technology for High Voltage Drive Systems for Electric and Hybrid Electric Vehicles.
- Defined package and performance requirements for next generation EV Drive semiconductor development.
- Program Managed PSA-Freescale Hybrid Drive program.

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Freescale Semiconductor, Tempe, AZ 2008-2009

Global Director of AMPD (Analog and Mixed Signal Division) VSC (Virtual Supply Chain)

- Responsible for managing Test Engineering, Product Engineering and Supply Planning for AMPD
- Managed global team of 200+ managers, engineers, technicians and planners with direct reports in the United States, Japan, China, France and Germany
- Responsible for product test development and product qualifications, automotive and commercial
- Established test strategy for optimizing product cost, quality, development time and equipment utilization
- Drove strategic planning for product life decisions such as EOL (End-Of-Life) or test platform changes

Freescale Semiconductor France, Toulouse, France 2005-2008

European Director, AMPD (Analog and Mixed Signal Division) Product Development

- Responsible for managing all Freescale Analog product design and development in Europe
- Managed European product development team consisting of 200+ managers, engineers and technicians in Design, Layout, Test and Product engineering located in Toulouse, France and Munich, Germany
- As senior AMPD manager in Europe, had key role in European customer relationship responsibilities
- Introduced focused PPI (Product Performance Improvement) organization, elite multi-disciplined teams with design, product and test engineers exclusively tasked to improve quality and yield performance of current and legacy products
- Drove design-for-test and design-for-quality initiatives such as die serialization and customer accessible BIST (Built-In Self Test) modules which improved both the quality of the product and the speed and quality of the product failure analysis when failures did occur

Motorola SPS GmbH - (2004) Freescale Halbleiter GmbH, Munich, Germany 1999-2005

Product Development Manager

- Managed applications, systems, test and product engineering team of a dozen engineers and technicians
- Defined, qualified and brought into production the IDC (Intelligent Distributed Control) product line of integrated microcontroller and analog IC's for distributed automotive actuator control (adaptive vehicle headlights lights, smart mirrors, door locks, seat motors and climate control motors)
- Directly managed customer development interface, negotiating NRE (Non-Refundable Engineering charges), pricing, product performance specifications and objectives and agreed development timelines

Motorola SPS PPD (Power Products Division), Phoenix, AZ 1995-1999

Engineering Manager for Hybrid Power Modules and IGBT's

- Responsible for managing Application, Product Definition, Package Design, Test and qualification of Hybrid Power Modules and IGBT's
- Managed 30 member applications, test, product and package engineering team
- Created and introduced products ranging from; 1 to 5 HP custom integrated drive stages, standard modules for the 1/2 to 5 HP industrial motor control market and discrete IGBTs
- Created a new low cost hybrid power package for fractional to 3 hp motors.

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DeVore Aviation, Albuquerque, NM 1992-1995

Chief of Electronic Engineering

- Responsible for electronic/electrical design, development and qualification of aircraft lighting systems, visual approach systems and handheld strobe measurement equipment
- Designed, developed, patented and FAA certified unique hand held strobe flash measurement gun enabling airlines to measure and replace degrading anti-collision strobe lights. After 20 years this product is still in production at DeVore Aviation.

Motorola SPS, Phoenix, AZ 1984-1992

Electronic Engineer in SRDL (Semiconductor Research and Development Laboratories)

- Responsible for IGBT and Power FET device design and development
- Hold multiple patents on fast IGBT's for motor control

Education

AS/ET EE New Mexico State University, Los Cruces, NM, with additional Physics, Electronics and Semiconductor Manufacturing Engineering studies at University of New Mexico and Arizona State University.

Other Accomplishments

Hold 8 US patents and 1 EU patent covering a broad range of engineering disciplines from power device design to power control systems, silicon process development, and automated optical measurement;

4766363	Voltage limiting control system for heat emitting loads
5141889	Method of making enhanced insulated gate bipolar transistor
5183769	Vertical current flow semiconductor device utilizing wafer bonding
5257155	Short-circuit proof field effect transistor
5446277	Automated lamp monitoring system for comparing light intensities
5654794	Portable light intensity monitoring systems
5927993	Backside processing method
6154369	Electronic assembly for removing heat from a semiconductor device
EP 529448A2	Field Effect Transistor Protection Circuit

Have published articles in trade magazines and in conference proceedings, data books and application notes. Some notables include; "Cost Effective Power Package Handles Up To 3HP Motor Drives," PCIM January 1997, re-printed in the Motorola IGBT Data Book, "Passivation Induced Voltage Breakdown Shifting in Surface Zener Structures," Proceedings of the International Symposium for Testing and Failure Analysis, 1990. "ESD Induced Damage in Vertical Power MOSFETs," Proceedings of the International Symposium for Testing and Failure Analysis, 1988, reprinted in 1992 as application report AR500/SD by Motorola Literature Distribution. "An Alternating Current Switch Mode Power Supply," Eleventh International PCI '86 Conference, 1986.

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