

Electronics R&D - New Product Development

Electronic Security Systems and Sensors



- Over 35 years' in-depth industry experience. "Hands on" to senior executive levels.
- Past **Vice President of Engineering** for Tyco Security Products / Digital Security Controls (DSC), a leading global manufacturer of electronic security systems and components with sales exceeding ~\$400 million annually ([Tyco](#) acquired [DSC](#) in 2001).
- Hundreds of products researched, developed, and released including Wired and Wireless Security Systems, Control Panels, Motion Detectors, Smart Solar LED Lighting and more.
- Experienced with the complete new product development cycle. Concept to production.
- Named Inventor on 25+ Patents. Experienced in the Patent identification & filing process.
- Experienced with Civil, Criminal & Patent Litigation, Arbitration & Inter Partes Reviews (IPR)

Previous Client's:

(partial sample)

2GIG Technologies | Nest Labs (Google) | Alarm.com | AT&T Digital Life | Protect America Inc.
Lowe's Companies | MD Security Solutions | SecureNet Technologies | Slomin's, Inc.
Telular Corporation | Skybell Technologies | Zonoff Inc. | Zmodo Technology | ITX Security Co.

Areas of Expertise:

Burglar Alarm Security Systems	Electronic Security System and Sensor Design – Wired and Wireless	New Product Development (NPD)
Wired, Wireless and Hybrid Security Alarm Systems and Sensors	Electronic Circuit Design (Analog, Digital and RF)	Product Research & Development
Intrusion Detection Systems	Embedded Controllers (CPU/MCU) (Zilog Z8/eZ8, Microchip PIC, etc.)	Electronic Product Design
Premise Monitoring Systems	Software Coding (Assembler / C)	Engineering Management
Smoke and Fire Alarm Systems	Circuit Simulations and Analysis	Speed to Market
Integrated Security Systems	Narrowband RF wireless (433Mhz)	Design for Manufacturability
Video Monitoring (CCTV) and Verification with Security	Spread Spectrum (902 to 928 Mhz)	Design for Reliability
Audio Listen In, Intercom, Paging with Security	Battery Charging and Protection (CC/CV, LiFePO4, Li-Poly, etc.)	Cost Reduction Programs
Access Control with Security	Low voltage (control) systems	Compliance & Agency Approvals
Home Automation with Security	Alarm System Monitoring & Communications to Central Station	Environmental Immunity (ESD/EFT)
Occupancy Detection Systems	Alarm Signaling Technology Cellular, Land Line, Long Range RF	Radiated & Conducted Immunity
Alarm Control Panels, Intrusion Control Panels, Alarm System Controllers, Control Devices	Security Network Protocols (AML, Wireless, Keybus, Combus)	False Alarm Immunity
Keypads, Zone Expanders, Wireless Rx/Tx, Output Modules, Sensors, Digital Dialers / Communicators	Personal Emergency Response System (P.E.R.S.)	Plastic Enclosure (Tooling) Design for Production Injection Molding
Motion Detectors, PIR (Passive InfraRed) Fresnel & Mirror Optic, μ W Doppler (X/K Band Microwave)	False Alarm Reduction Modules	Mixed Mode ASIC Development
Smoke Detectors, Heat Detectors	Telephone, Thermostat, X-10 (PLC) Interactive Interface with Security	Electronic (Smart) Thermostats
Door and Window Sensors	SOHO PBX Telephone Systems	Solar Cell Charging Circuitry (MPPT)
		Energy Management Systems
		LED Driver & Control Circuitry
		Solar Powered LED Lighting (Patio to Street Level)
		Glassbreak Detectors, Vibration and Shock Sensors

Industry Work Experience

- **Electronics R&D – New Product Development**
- **Electronic Security Systems and Sensors**

Consultant at Parker Security Consulting Inc. (PARSEC)

June 2011 to Present

Founded Parker Security Consulting Inc. (a.k.a. PARSEC), to provide technical consulting and expert witness services in the areas of Electronics R&D, New Product Development, Electronic Security Systems and Sensors, as well as other areas related to my skill set and 35 plus years of industry experience. See Expert Witness / Consultant Experience starting on page 6.

President at EE-Systems Group Inc. Canada (R&D)

www.eesgi.com

August 2004 - 2014

Co-founded EE Systems Group Inc. in both Canada (for R&D) and the United States (Operations). Oversight for new product and business development. Full management and executive responsibility. Developed multiple new technologies and intellectual property. Multiple United States, Canadian, Chinese and International patents developed, filed and/or granted. Defined and negotiated major corporate contracts with several organizations. Numerous new products developed and introduced to production. Developed and licensed EE-SGI's "ePIR" software to several multinational companies including Zilog, now part of IXYS for passive infrared motion detection (marketed under the name "[ZMOTION](#)"). The ePIR / ZMOTION solution provides for Intrusion as well as occupancy detection. Developed the eFAR100 False Alarm Reduction module using embedded Z8 MCU technology with firmware written in assembler (machine code). Also developed full scalable suite of technology for solar powered, motion controlled, LED illumination from patio to parking lot sizes.

Vice President of Engineering at Tyco Security Products

Head of Engineering at Digital Security Controls (DSC) Limited

(Note: DSC was acquired by Tyco Security Products in December 2001)

www.tycosecurityproducts.com

www.dsc.com

March 1985 - December 2003 (~19 years)

Head of 200+ member engineering department composed of engineers, scientists, technologists and technicians. Responsible for all of DSC's research and product development efforts. Senior member of the DSC executive team setting strategic direction for the company. Cross functional responsibilities in Marketing, New Business Development and Manufacturing. Development of policies, procedures and practices. Financial planning and budget generation. Administration of corporate patent investigation, generation and infringement avoidance. Key vendor relationship building and negotiations. Major customer presentations and interaction. Principally involved in several corporate initiatives such as Six Sigma and ISO900X (quality programs), Speed to market, Ethics training, Customer training, Major cost reductions, etc.

About DSC...DSC began in 1979 as a basement operation supplying alarm control panels to the Canadian market. Joined DSC shortly after the founder, moved the operation out of his basement and into a small industrial unit. Staff consisted of the founder, three assembly workers and myself. Brought to DSC, microcontroller and other advanced technologies. Experienced extraordinarily successful career that saw DSC expand to become one of the three largest companies in its marketplace with worldwide sales in over 120 countries. Growth fueled by optimum combination of product feature set, cost and quality. DSC was acquired by TYCO in December of 2001 for approximately \$400 million dollars.

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Vice President of Engineering at Swinemaster Inc.***June 1984 – March 1985***

In charge of a small R&D team that developed and built several working prototypes of an automated juvenile swine feeding machine. The multipart component design of this automated juvenile swine feeding machine utilized several (up to 10) Zilog Z8 Microcontroller Units (MCU's) with the software written in assembly language (machine code).

Technical Sales Representative at Har-Tech Electronics Ltd.***January 1984 – June 1984***

Provided sales and technical support to customers (and potential customers) of electronic component manufacturers such as Zilog and others in the greater Toronto area (GTA).

Engineering Technologist at Thermetic Controls Limited***January 1983 – December 1983***

Designed and implemented production test equipment for baseboard heater safety limit switches. Also designed and built working prototype of a digital setback thermostat for controlling electric baseboard heaters by synchronized pulse width modulation (PWM) of 240 VAC mains.

Publications and other Documentation

The Greek Philosopher Plato and False Alarms (click [here](#) for PDF)

National Burglar and Fire Alarm Association (NBFAA) June 6, 2005

Many proprietary engineering and product specifications. Numerous contributions to product manuals and guides.

Education**RCC Institute of Technology**

A Division of Yorkville University

Toronto, Ontario, Canada

1980 – 1982

Electronic Engineering Technology

- Roughly equivalent to a US bachelor's degree

Northern Secondary School

(High School)

Toronto, Ontario, Canada

1975 – 1979

- Electronics (in Shop class)
- Electronics Club
- Hobbyist & project builder

Selected Major Competencies and Accomplishments

While at EE-SGI, developed several new technologies such as ePIR for motion detection, eLEDing for high efficiency LED illumination and eFAR for significant false alarm reduction. Successfully completed multiple SR&ED (Scientific Research and Experimental Development) applications resulting in significant financial grants to EE-SGI.

While at DSC/Tyco, was principal architect and driving force behind most of DSC's major commercial product successes. These include the industry benchmark setting "Power" and "Maxsys" families. Also includes the PC1550, the most prolific alarm control panel in the world with an installed base in the millions.

Worked directly with one of Latin America's premier telephone operators to determine requirements, then rapidly produced functional prototypes for demonstration to their CEO and other senior management. Previously maintained an excellent relationship with the senior decision makers in this organization and as such could be an enormous asset to any company that hopes to supply them. This organization has identified a market of nearly six million customers for intrusion security. Identified a range of suitable products for their market.

Organized and drove corporate speed to market initiative. Defined required policies and procedures. Implemented STM plan. Resulted in average product development cycle reduction of 40%.


























Developed the KEYBUS and COMBUS protocols for interconnecting components. These protocols have a proven track record and have been widely imitated and copied. Also developed DSC's wireless protocols for both 924 Mhz DSSS (Direct Sequence Spread Spectrum) and 433.92 Mhz tight narrow band.

Saved DSC from 15% shortfall in annual production. Due to a clerical error, a critical custom component (an ASIC – Application Specific Integrated Circuit) was shorted by ~200,000 units. Lead time was long, all attempts to persuade supplier failed. Used relationship with supplier's senior management to have required units arrive just in time.

Prior to completion of DSC sale to TYCO, re-negotiated agreements with key suppliers. Resulted in annualized savings of over ten million dollars.

Conceived, and drove the development of over twelve mixed mode ASIC's (Application Specific Integrated Circuits). Perfect track record. No failures. All were commercial successes. Mixed mode ASIC's combine analog and digital circuitry on a single chip. They offer superior capabilities and performance to "off the shelf" solutions while dramatically reducing cost and improving product reliability.

List of Patents by Priority Date - James Parker as a Named Inventor

- **Wireless Alarm System (1993)** 
 - A security system having a two-way wireless keypad which operates in a particular manner for improved operation...
- **Method and Arrangement for Recognition of a Coded Transmitted Signal (1994)** 
 - The present invention is for fast, reliable recognition of coded signals where the signal includes a predetermined...
- **Security System with Two Signal Reporting (1997)** 
 - A security system having two distinct channels of communication and which uses a single communication device...
- **Home Automation and Security System Controller (1997)** 
 - The present invention, in one aspect, is directed to a security system which is capable of acting as an information...
- **Controllable Still Frame Video Transmission System (1997)** 
 - A video capture controller for selective capture of video images from a plurality of video cameras, the capture...
- **Programmable Temperature Sensor for Security System (1998)** 
 - The present invention in one aspect, provides for a programmable temperature sensor for a device as part of a...
- **Suspended Code for Alarm System (1998)** 
 - The system generates alarm suspension codes without direct interaction with the alarm panel. The alarm control...
- **Biometric Input Device for Security System (1998)** 
 - The present invention provides for a biometric input device for a security system. The biometric input device includes...
- **Dual Mode Panel (1999)** 
 - A dual mode alarm control panel includes a sensing arrangement for determining conditions of the environment in...
- **Alarm System Using Local Data Channel (1999)** 
 - An alarm system has an alarm unit in combination with a line seize module. The alarm unit includes a transmitter /...
- **Alarm System with Programmable Device Control (2000)** 
 - An alarm system providing programmable remote control of electrically controlled devices, such as lights, is provided...
- **Security Alarm Keypad with Message Alert (2000)** 
 - A security alarm system is adapted to retrieve e-mail status information and provide an alert signal for the user of the...
- **Remote Recovery Arrangement for Alarm System (2000)** 
 - A security alarm system cooperates with a remote monitoring station to improve the reliability of the alarm system...
- **Security Alarm Keypad with Message Alert (2000)** 
 - A security alarm system is adapted to retrieve e-mail status information and provide an alert signal for the user of the...
- **Remote Recovery Arrangement for Alarm System (2000)** 
 - A security alarm system cooperates with a remote monitoring station to improve the reliability of the alarm system...
- **Alarm System with Programmable Device Control (2000)** 
 - An alarm system providing programmable remote control of electrically controlled devices, such as lights, is provided...
- **Integrated Lightning Detector (2003)** 
 - An alarm panel of a security system is additionally provided with an interference circuit for evaluating the possible...
- **False Alarm Reduction Method and System (2005)** 
 - A digital verification control, which is incorporated with an alarm system, includes a first timer device for presetting a...
- **Security Device with Built-In Intercommunicated False Alarm Reduction Control (2005)** 
 - A security device includes a plurality of security detectors intercommunicating with each other. Each of the security...
- **Integrated Detecting Processor (2005)** 
 - An infrared sensor includes an infrared generator for generating infrared radiation within a detecting area, a pyro...
- **Energy Signal Detection Device Containing Integrated Detecting Processor (2005)** 
 - An energy signal detection device includes a pyroelectric sensor sensing an infrared radiation within a detecting area...
- **Process and System of Energy Signal Detection (2006)** 
 - A process and system of energy signal detection, which improves sensitivity, performance and reliability thereof and...
- **Process and System of Power Saving Lighting (2007)** 
 - A process and system of lighting with green energy source and intelligent power management, which saves energy...
- **Process and System of Energy Signal Detection (2008)** 
 - A process and system of energy signal detection, which improves sensitivity, performance and reliability thereof and...
- **Single MCU-Based Motion Detection, Local Alarm and Supervisory Arrangement for Alarm System (2008)** 
 - A device with single MCU-based motion detection, local alarm and supervisory arrangement for alarm system...

Click on the respective  icon above to open a corresponding PDF copy of the patent.

Expert Witness / Consultant Experience

Patent Infringement - Honeywell International, Inc. v. 2GIG Technologies, Inc. et al

U.S. District Court for the Eastern District of New York (Central Islip). Case 2-09-cv-05156.

Retained by the defendant 2GIG Technologies. Provided expert report, rebuttals, and support, including prior art candidates as required.

Patent Infringement - Honeywell International, Inc. v. Nest Labs, Inc. (Google) et al

U.S. District Court for the District of Minnesota (DMN). Case 0:12-cv-00299.

Retained by the defendant Nest Labs. Asked to analyze electronic schematics and determine the precise functionality of several key components. Performed comparative analyses. Generated expert declaration and rebuttal.

Patent Infringement - Alarm.com Incorporated v. Telular Corporation

U.S. District Court for the District of Delaware (Wilmington). Case 1:13-cv-00890.

Retained by the plaintiff Alarm.com Inc. Reviewed case material. Provided initial support then focus transferred to the following matter.

Patent Infringement - iControl Networks, Inc. v. Alarm.com Incorporated et al

U.S. District Court for the Eastern District of Virginia - (Alexandria). Case 1:13-cv-00834.

Retained by the defendant (and plaintiff) Alarm.com Inc. in this claim / counterclaim case (11 patents in suit). Prepared extensive expert report and related documents. Assisted in rebuttals of other sides expert reports. Performed both infringement and invalidity analysis. Provided multiple prior art candidates. Case timeframe highly accelerated.

Patent Infringement - Script Security Solutions, LLC v. AT&T Digital Life, Inc. et al

U.S. District Court for the Eastern District of TEXAS (Marshall). Case 2:15-cv-00370.

Retained by the defendant AT&T Digital Life. Reviewed case material. Provided multiple prior art candidates. Generated supporting (invalidity) claim charts.

Patent Infringement - Secured Structures, LLC v. Alarm Security Group, LLC

U.S. District Court for the Eastern District of TEXAS (Tyler). Case 6:14-cv-00930.

Retained by the plaintiff Secured Structures LLC. Reviewed and analysed relevant material as required. Assisted with claim construction matters. Prepared expert declaration. Provided technical expertise and support.

Wrongful Death Civil Suit - C. Lewis-Harris et al v. Interstate Realty et al

U.S. Circuit Court for Jackson County, MO (Independence). Case 1416-cv-29921.

Retained by the Plaintiff (C. Lewis-Harris & S. Payne) in a Wrongful Death suit. Reviewed all case material. Performed in-depth onsite inspection. Completed detailed analysis of equipment and relevant documentation. Formulated theory of failure mechanisms. Deposed by defendants' attorneys.

Patent Infringement - Iron Gate Security, Inc. v. Lowe's Companies, Inc.

U.S. District Court for the Southern District of New York (Foley Square). Case 1:15-cv-08814.

Retained by the defendant Lowe's. Searched for, identified and prioritized prior art and/or obviousness material on a claim by claim basis to determine optimum references for potential IPR (Inter Partes Review) petition. Prepared expert declaration in support of IPR effort. Reviewed and assisted with the generation of the completed IPR Petition.

Inter Partes Review (IPR) of U.S. Patent 7,864,983

Patent Trial & Appeal Board. PTAB-IPR2016-00285

Retained by the patent owner MD Security Solutions. Reviewed and analysed relevant material. Provided declaration regarding key technical points. Reviewed and critiqued patent owner's response to the PTAB. Deposed by attorneys for the petitioning party RPX Corporation.

Inter Partes Review (IPR) of U.S. Patent 8,473,619, U.S. Patent 8,478,844 and U.S. Patent 8,073,931

Patent Trial & Appeal Board. PTAB-IPR2016-01919, PTAB-IPR2016-01920, PTAB-IPR2016-01911, PTAB-IPR2016-01916 and PTAB-IPR2016-01909 (total of 5 IPR petitions involving 3 patents).

Retained by the petitioner SecureNet Technologies to assist in the preparation of multiple IPR petitions. Assisted in the search, vetting and prioritization of prior art and obviousness references. Generated comprehensive expert declarations and was heavily involved in the preparation and review of the finalized IPR Petitions.

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Product Liability (Class Action) - Controllable On-Site Protection Security Systems Inc v. Telular Corp.

U.S. District Court for the Little Rock Division (Arkansas Eastern District). Case 4:14-cv-00487.

Retained by the defendant Telular Corporation in a class action product liability suit. Reviewed the Telular product hardware and software as required. Interviewed Telular engineers and service technicians. Generated preliminary opinion regarding the Telular products in question.

Inter Partes Review (IPR) of U.S. Patent 9,516,284

Patent Trial & Appeal Board. PTAB-IPR2017 (not filed – see below)

Retained by the petitioner Skybell Technologies Incorporated. Assisted in the search, vetting and prioritization of prior art and obviousness references. Prepared multiple claim charts. Provided definitions of key claim terms with supporting documentation. Generated draft declaration and claim charts. Inter Partes Review (IPR) petition not filed as related litigation matter settled out of court.

Patent Infringement - iControl Networks, Inc. v. Zonoff, Inc.

U.S. District Court for the District of Delaware (Wilmington). Case 1-14-cv-01199.

Retained by the defendant Zonoff Inc. Reviewed the 6 patents in suit, interrogatories, responses, email correspondence, infringement charts and other case related material. Specifically researched and dug up material on a preexisting two-way RF (Radio Frequency) wireless system (prior art candidate). Discussed possible IPR strategy. Generated multiple claim charts in support of potential IPR(s). Assisted in claim language interpretation. Case terminated before trial.

Patent Infringement - ICN Acquisitions LLC v. Zonoff, Inc.

U.S. District Court for the District of Delaware (Wilmington). Case 1:15-cv-01109.

Retained by the defendants Zonoff Inc. Expediently researched prior art as per (then urgent) request. Reviewed specific claims of '736 and '385 patents in light of identified prior art. Provided opinion with supporting documentation. Advised on subject material and helped clarify technical matters. Case terminated before trial.

Patent Infringement - Eyetalk365, LLC v. Zmodo Technology Corporation, Ltd.

U.S. District Court for the Western District of North Carolina (Charlotte). Case 3:16-cv-789.

Retained by the defendant Zmodo Technology Corporation. Reviewed Zmodo's preliminary claim construction and invalidity contentions. Reviewed plaintiff's preliminary infringement contentions. Researched material as required. Produced declaration. Case terminated before trial.

Patent Infringement - Wireless Monitoring Systems LLC v. AT&T Digital Life, Inc. et al

U.S. District Court for the Eastern District of Texas (Marshall). Case 2:17-cv-00501.

Retained by the defendant AT&T Digital Life. Reviewed both patents in detail as well as other relevant case material. Searched for and provided multiple prior art candidates. Reviewed potential for an Inter Partes Reviews (IPR) . Provided additional technical support as required. Case settled before trial.

International Arbitration Tribunal - Avigilon Technologies Corp. v. ITX Security Co., Ltd. et al.

American Arbitration Association International Centre for Dispute Resolution. Case 01-17-0004-5750

Retained by the Korean based, ITX Security Company. Researched and reviewed numerous archival documents. Reviewed ITX's products in detail including schematics, source code, manuals and other documentation. Prepared detailed report. Prepared for, attended, and testified (with cross) at three-day hearing held before the International Arbitration Tribunal of the American Arbitration Association in Dallas Texas.

Capital Murder Trial - The State of Texas vs. Antonio Armstrong Jr.

178th District Court for Harris County (Houston), Texas 77002

Retained by the defendant's family. Inspected the homicide location and the security system equipment located therein. Reviewed all pertinent records and documentation. Testified in front of judge and jury. Cross examined at length by Assistant District Attorney.

Patent Infringement - Portus Singapore Pte Ltd. et al v. AT&T Digital Life, Inc.

U.S. District Court for the Eastern District of TEXAS (Marshall). Case 2:19-cv-00044.

Retained by the defendant AT&T Digital Life. Reviewed patents in suit as well as numerous references. Reviewed and assisted in generation of multiple claim charts. Helped with claim language. Identified indefinite terms.

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Patent Infringement - Karamelion LLC v. AT&T Digital Life, Inc.

U.S. District Court for the Eastern District of TEXAS (Marshall). Case 2:18-cv-00331.

Retained by the defendant AT&T Digital Life. Reviewed patents in detail. Analyzed claim language and documented results. Case settled before trial.

Patent Infringement - Alarm.com Incorporated et al v Protect America, Inc.

U.S. District Court for the Western District of Texas (Austin). Case 1:18-cv-00521.

Retained by the defendant Protect America. Reviewed multiple patents and file histories. Reviewed initial complaint and infringement contentions. Analysed material and provided opinion. Case settled before trial.

Patent Infringement - Iron Gate Security, Inc. v. Slomin's, Inc.

U.S. District Court for the Eastern District of New York (Central Islip). Case 2:18-cv-02106.

Retained by the defendant Slomin's, Inc. Reviewed patent in suit. Qualified and/or searched for and prioritized prior art and/or obviousness material. Reviewed claim terms and identified incomplete and/or indefinite terms. Document results. Case settled before trial.

Patent Infringement - Axxess International, Inc. v. Genetec (USA) Inc.

U.S. District Court for the District of Delaware (Wilmington). Case 1:18-cv-01276.

Retained by the defendant Genetec (USA) Inc. Review and discussion of patent in suit via teleconference. Researched and searched for prior art candidates. Generated claim charts and related documentation.