

General Experience

- ◆ Systems Engineering and Analysis
- ◆ Circuit Design
- ◆ Printed Circuit Board Layout
- ◆ Prototype Assembly and Test
- ◆ Software Development
- ◆ Support for Agency Testing (UL, CE, FCC and others)
- ◆ Manufacturing Transition
- ◆ Project Management

Electronic Design

- ◆ Military and Aerospace systems
- ◆ Medical products
- ◆ Embedded Controllers
- ◆ Motion Control
- ◆ Industrial Interfaces
- ◆ Digital Signal Processors
- ◆ Power Supplies and Controllers
- ◆ RFID Systems
- ◆ Data Collection Systems
- ◆ Security Alert & Access Controls
- ◆ Instrumentation
- ◆ Communications Interfaces

Microprocessors

- ◆ Freescale 8, 16, 32 bit microcontrollers and DSPs
- ◆ TI microcontrollers and DSPs

- ◆ Microchip PIC Family
- ◆ Atmel AVR Family
- ◆ Intel 8051 families
- ◆ Renesas SH4

Interface Design

- ◆ USB
- ◆ Modbus
- ◆ Ethernet
- ◆ RS-232/422
- ◆ RS-485
- ◆ CAN
- ◆ MIL-STD-1553B

Programmable Logic

- ◆ CPLD
- ◆ SPLD
- ◆ FPGA

Software Experience

- ◆ Real-time Embedded Controllers
- ◆ Machine Controls
- ◆ Motor Control
- ◆ Automation
- ◆ Operator Interfaces
- ◆ Industrial Communication Interfaces

Software Skill Sets

- ◆ Visual Basic
- ◆ C/C++
- ◆ Ada
- ◆ Fortran
- ◆ Jovial
- ◆ Object Pascal
- ◆ ASP
- ◆ XML

- ◆ Java Script
- ◆ Microsoft BizTalk
- ◆ SQL Server
- ◆ MS Access
- ◆ Ethernet TCP/IP
- ◆ Active X
- ◆ OLE Automation Controls
- ◆ COM/COM+
- ◆ Windows, VxWorks
- ◆ Assembly language

Software Platforms

- ◆ Client Server
- ◆ Low level (socket) Programming
- ◆ n-tier
- ◆ Internet

PC Board Design

- ◆ Double Sided & Multi-layer Designs
- ◆ Radial Layouts and Non-standard Geometries
- ◆ SMT, Thru Hole, Hybrid boards
- ◆ BGAs
- ◆ Digital, Analog, RF, Power, Mixed Technologies
- ◆ High Speed/High Density/Fine Pitch
- ◆ Impedance Control
- ◆ Matched Line Lengths
- ◆ Differential Pairs
- ◆ High Current
- ◆ Flex Circuits
- ◆ ANSI/IPC compliance
- ◆ OrCAD Capture & Layout
- ◆ Cadence Allegro

- ◆ P-CAD
- ◆ Altium Designer
- ◆ PADS PCB
- ◆ AutoCAD & TurboCAD

Prototype Services

- ◆ Bare PCB acquisition
- ◆ Parts Ordering & Kitting
- ◆ Board Assembly
- ◆ Basic Packaging Design (custom boxes and front panels)
- ◆ Test Fixture & Test Software Development
- ◆ Unit test & system integration
- ◆ Temperature Testing
- ◆ Cable and Harness Design and Assembly
- ◆ Electromechanical and Box Build
- ◆ Support for Agency Testing

Production Services (provided thru one of our ISO certified manufacturing partners)

- ◆ SMT Stencil Acquisition & Printing
- ◆ SMT Pick and Place
- ◆ SMT Hot Air Convection Soldering
- ◆ Xray inspection
- ◆ Thru-Hole Assembly
- ◆ Wave soldering (no-clean or water soluble)
- ◆ Closed loop de-ionized water wash
- ◆ ICT, MDA, functional and ESS Test
- ◆ Conformal Coating
- ◆ Cable Assembly
- ◆ Electromechanical and Box Build
- ◆ BGA and Fine Pitch Rework