



Ball Systems, Inc. Offerings and Capabilities

Represented By
MidTechV Sales
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Electronic Test Equipment

- PXI, PCI-based Test Systems based on NI, Agilent, Pickering, Virginia Panel, etc.
- Functional test equipment and fixtures
- ATE Test Stands
- Load Boxes
- Bench-top or automated test fixtures
- Vehicle emulation rack/bench testers
- Build-to-print and original design of electronic equipment, test systems and components

Automation Design and Integration

- Industrial control and monitoring systems
- Process control development
- Machine vision systems
- Programmable Logic Controller interface
- Data acquisition
- Synchronous/asynchronous communications

Custom Engineering

- Analog, digital, FPGA electronic circuit design
- Schematic capture, PCB layout, modeling, etc.
- Product development from any phase of development cycle
- Embedded Controller system design - Embedded DOS, real time systems
- PC/AT/Windows applications
- Desktop v.6, Inventor v.6, AutoCAD v.2005

Low Volume / Contract Manufacturing

- Custom box builds and custom cables
- Custom and off-the-shelf magnetic components
- Printed circuit board assembly
- Metal fabrication
- Quick turn electrical and mechanical prototyping
- Component sourcing

Electrical design

- Processors: Freescale, ARM, Rensasa, PIC Microchip, 8051, 80x86, 68xxx, MPC 821, Hitachi H8 family, Z-80, 64180, and others
- Systems busses: STD, Multibus 1 & 2, ISA (PC/AT), Smart Card, PC-104
- Protocols: IEEE-488, RS232, RS422, RS485, I²C, Bitbus, Microwire, Custom protocol
- Analog circuits: A/D, D/A, instrumentation amps, signal conditioning, power supplies, RF circuitry and application-specific designs.
- Digital circuits: DSP, static, dynamic and non-volatile memory circuits, disk controllers, programmable logic devices, LSI controllers
- PC-compatible systems design and integration
- PCB design tools: ORCAD and associated utilities, Circad

Software/System design

- NI LabView, LabWindows/CVI, TestStand, etc.
- Embedded controller firmware
- Intelligent I/O sub-systems
- Communications sub-systems (CAN and serial)
- Acquisition, control and display sub-systems
- 3-phase power monitoring
- Real-time control and monitoring
- Schedulers (Nemos)
- RTOS (ThreadX)
- File systems (FileX)
- IIC, SPI, SCI, Flash drivers Comm control & PLC
- Graphics and human interface (GDI & HMI)
- Database management
- Windows applications
- Languages: Assembly languages, C, C++, Visual Basic, PL/M-51, PL/M-86
- Compilers: Microsoft, Borland, MASM, Intel, Archimedes, Diab Data, Visual Basic