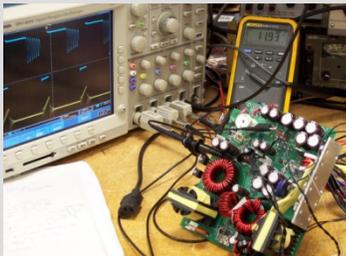Z-AXIS design skills include analog, digital, mixed-signal and power.

We offer a full range of expert design and PCB layout services.

We specialize in compact designs and unusual form factors.

Functional prototypes demonstrate feasibility of your product ideas.

We assure quality through ISO processes and equipment such as automated optical inspection (AOI).

We also redesign existing products to replace obsolete parts & improve cost, performance and reliability.

Design services

Our skilled design engineers *are* the product design team for many of our small and mid-sized customers. For our larger customers, we extend the capacity and expertise of your in-house staff: from new product development to legacy product updates to solving manufacturability problems.

In every relationship we earn our reputation for effective communication and unmatched support and service. We cover the entire product design and development process:

Concept   Starting with just your idea for a new product, we help you develop the concept, identify target performance and features, estimate costs and sketch out timelines.

Feasibility   We create a functional prototype to demonstrate your "new art," show feasibility of key features and uncover potential performance and cost trade-offs.

Design   We provide full system, circuit and board level design. Our strengths include hard-to-find skills in analog and power design.

- System level design
- Circuit & board level design
    - New designs
    - Redesign for manufacturability, RoHS, cost reduction, improved performance, etc.
- Analog design
- Digital design
- Mixed-signal design
- Power design
- Design for Manufacturing (DFM)
- Microcontroller software design

PCB layout   We specialize in multi-layer, mixed technology and compact or unusual form factors. With the support of our on-site manufacturing team, we excel at design for manufacturing (DFM).

More   Our complete system design services include mechanical enclosures and wire harnesses.

Prototypes & pre-production

We can quickly create high-end prototypes, including features such as BGAs, using the same equipment that we will use to manufacture your final products. With in-house prototyping and pre-production capability, we can:

- Demonstrate and optimize manufacturing processes for your product
- Demonstrate repeatable product performance
- Provide several units (typically 10 to 100) for verification in your final system
- Provide units for agency certification testing

Then we move smoothly into full on-shore production.

www.zaxis.net ▪ (315) 548-5000

Manufacturing services

From our high-speed SMT line, to our high-mix lines with quick change-over capabilities, we easily handle both large volumes and smaller production runs. We combine modern automation equipment and skilled manual assembly to give you high-quality, cost-effective production…regardless of volume.

We are ISO9001:2008 certified and follow IPC-A-610F standards on our full range of automated and manual assembly services.

PCB assembly Simple, complex or highly unusual - we can meet your requirements. We routinely produce fine-pitch boards with components as small as SMT 01005, unusual form factors, special connectors and more. Capabilities include:

- Surface mount, through-hole and mixed
- Manual and fully-automated insertion
- Single and double sided
- FR4, polyimide, metal clad and flex boards
- SMT as small as 01005
- BGAs and µBGAs
- Full surface mount rework services
- IC programming
- Lead-free / RoHS assembly
- Leaded solder process by request
  (e.g. for military or medical applications)

Other assembly Beyond PCB assembly, we offer:

- Cable and wire harness assembly
- Electromechanical subsystem assembly
- System-level assembly

Related services We bring together everything you need for a successful project. This may include:

- Parts sourcing and procurement
- Obsolete and hard-to-find parts sourcing
- Consigned inventory
- Testing
- Sub-assemblies
- Box builds
- RoHS compliance testing
- Custom-molded ESD trays for shipping
  less waste; easier to handle and inventory

Standards and certifications

Our facility is ISO 9001:2008 certified for quality processes from design through delivery. We assist you in meeting standards including UL 2601, UL 60950, CAN/CSA-C22, EN 60601, EN 60950, IEC 601-1. We can also assist you with obtaining agency certifications such as UL, TÜV, CSA and CE. Z-AXIS is ITAR registered.

With both high-speed and high-mix lines, we produce PCBs with SMT 01005, BGA and µBGA components.
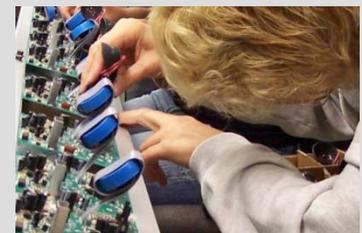

Our PCB manufacturing processes include both lead-free (RoHS) and traditional leaded processes.

The right mix of automation and skilled manual assembly yields high-quality, cost-effective production.

Manufacturing services include cable and wire harness assembly, mechanical enclosures and more.

We follow IPC-A-610F standards on our full range of services.

Attention to detail: custom-formed ESD trays protect your product in shipping and simplify handing.

www.zaxis.net ■ (315) 548-5000

Z-AXIS manufacturing equipment list

This is a partial list. We continuously invest in new technology to meet your needs. Visit www.zaxis.net for our latest equipment list.

Surface mount technology (SMT)
- Philips Assembléon AX-501 SMT line
  - High-speed line: 60,000 parts/hour, as small as SMT 01005
- MYDATA MY9e MYSynergy SMT lines
  - High-mix line: quick change-over, parts as small as SMT 0201
- BTU Int'l Pyramax 98 and Conceptronics 60 reflow ovens
- Speedline MPM UP3000 Ultraflex fully automated and MPM/SPM semi-automated stencil printers
- Xeltek SuperPro robotic IC programmer
- OKI-Metcal BGA/SMT rework station

Through-hole technology
- Amistar AI-6448 axial insertion

Soldering and board work
- Vitronics Soltec Delta wave solder (lead-free)
- Hollis Astra wave solder (leaded)
- Westek closed-loop orbital aqueous cleaner
- Metcal soldering systems
- DataPAQ Q18 thermal profiler

Inspection
- YesTech YTV B3 automated optical inspection (AOI)
- Glenbrook jewel box 70-T x-ray
- Fischerscope x-ray fluorescence spectrometer
- SMT Tools side-looking microscope (BGA inspection)
- Lynx vision systems
- Raytheon/SPI Palm IR-225 thermal imager

Wire harness assembly and coil winding
- Schleuniger wire cutter/stripper
- Amp K presses
- Adams-Maxwell horizontal winders
- Jovil JV75 hook winders
- Various hand tools

Other
- Airwolf 3D printer
- Dual 100-watt CO_2 laser
- Programmable robotic conformal coating machine
- Branson ultrasonic welder
- Bridgeport CNC 3-axis mill
- Custom ESD packaging thermal former

About Z-AXIS

Z-AXIS Inc. provides IS0 9001:2008 quality design, prototyping and manufacturing services for complex electronic products and electromechanical assemblies. We offer fast design turnaround, competitive NRE charges, rapid production and low freight costs from our design and manufacturing facility in western New York. We meet our OEM customers' most demanding requirements.

4.10.2015

Z-AXIS Inc. 1916 Route 96, Phelps, NY 14532 **(315) 548-5000** ■ **www.zaxis.net**
We provide innovative solutions to satisfy our customers' needs.

Philips Assembléon high-speed SMT line places 60,000 parts per hour; handles parts as small as 01005.

MYDATA SMT line offers quick change-over for small runs; online component testing for high quality.

Airwolf 3D printer creates cost-effective prototypes and fixtures.

Vitronics Soltec Delta lead-free wave solder with computer control allows us to store and quickly set up the best process for each board.

Xeltek robotic IC programmer reduces costs, speeds delivery of microprocessors and memory ICs.

Glenbrook Technologies jewel box 70 T x-ray is used for BGA and multi-layer board inspection.