At Epec, we specialize in high-performance Printed Circuit Board physical design (layout) utilizing high-end software programs complemented by leading edge hardware.

Our Capabilities Encompass The Full Design Flow From Start To Finish Including:

- Micro BGA / Micro Via / Blind & Buried Vias
- Rules Driven Designs
- Schematic Capture
- Library Development
- Database Construction and Verification
- Signal Integrity/Design Verification
- EMI Checking
- Full Document Package Creation

We are fully licensed and utilize industry leading tools, including Cadence Allegro, Mentor Expedition, Mentor’s PADS, Altium, Valor for DFM Analysis.

We customize and develop software in-house to improve quality and complement our design tools.

We have the experience required to consistently meet the highest standards in the industry. Our experience spans multiple market segments, including Telecom, Datacom, Computer & Storage, Medical, Mil/Aero, Industrial, and consumer products.

Our expertise lies in High-Speed Circuitry Design up to 40GHz and Mesh Networking (Optical: OC-48, OC-192, T1, E1, and Infiniband).

Other capabilities include Thermal Engineering, Signal Integrity Analysis, Software and Firmware Design, including software integration and API design.

Digital/High-Speed and Analog Design Capabilities Include:

- Circuit Design and Analysis
- FPGA to ASIC Conversion
- Component Analysis & Evaluation
- Compliance and Value Engineering
- Pulsed Circuits
- Analog Circuit Simulation and much more!
- Embedded Microprocessors & Chipsets for Power PC, Intel x86, TI DSP, Mellanox, Broadcom and various other chipsets used in Server, Telecom, Industrial, and Commercial market segments
Epec's diverse and growing base of more than 2500 customers represents a wide range of markets including electronics, medical, industrial, communications, access controls, automotive, computing, military, and includes leading OEM's, contract manufacturers, and electronics manufacturing services (EMS) providers.

Contact us today, to experience why Epec has become one of the fastest growing Engineered Electronic Product providers in North America!

Toll-Free: 888-995-5171
Main: 508-995-5171
www.epectec.com

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**MECHANICAL ENGINEERING**

Our Engineers have 30 years experience in Mechanical Engineering. We are capable of supporting any part of the product lifecycle across multiple market segments. We utilize leading CAD platforms such as AutoCAD Inventor, SolidWorks, and Pro/ENGINEER Wildfire.

**Our Capabilities Include:**
- Packaging, Enclosure, and Industrial Design
- Product/System Architecture
- Detailed Mechanical Design
- Stress Analysis (FEA) Shock/Vibration Simulation
- Thermal Simulation
- Material and Component Selection
- Solid Modeling
- PCB Linkage DFM / DFA & Cost reduction

**Epec Can Provide:**
- Concept Sketches/Rendering
- Product Specifications
- Mock Ups
- 3D Rendering
- Full Documentation

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**PCB FABRICATION**

For over 60 years Epec has been your reliable PCB manufacture. From prototype to production runs our engineers can support you in all your PCB needs 24/7. Why look elsewhere, from the simplest single sided PCB to HDI, sequential laminated multilayers with multiple blind and buried vias we’ve got you covered. Via in pad, silver filled, copper filled, epoxy, conductive, non-conductive via fill, Aluminum, RF, ENEPIG, our specialty is customer service.

As we continue to expand our PCB supply chain we have one goal in mind, to provide our valued customers what they need when they need it. Supporting domestic 1, 2, 3 day quick turns, 5 day turns from Asia and our guarantee to satisfy.

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**SI ANALYSIS**

Our SI experts have years of experience in pre-design and post-design verification and analysis. This experience and expertise, combined with powerful state-of-the-art software, helps ensure your design will work the way you expect it to the first time and all the time. Although we can customize services to meet your unique needs, we have included a list below of the services we provide.

**Capabilities Include:**
- Up Front SI Risk Analysis
- Pre and Post Route Simulations
- Frequency Domain & Time Domain Modeling
- 3D Via Field Modeling and Optimization
- Optimization of AC Coupling Cap Launches
- Optimization of Connector Launches
- Infiniband, PCIe (Gen 1 & 2), XAUI link Analysis
- IEEE 802.3ap KR Compliance to 10 Gbps
- StatEye Time Domain Analysis
- DDR2 and DDR3 Optimization
- Crosstalk and Timing Analysis
- Detailed SI CAD Guidelines Generation
- Real Time SI Support Throughout the CAD Layout Process

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