

Our Commitment

Our Commitment is to serve our clients and partners with quality and timely design services

For our Electronic Contract Manufacturing (ECM) Partners we directly support you and your clients with **design services tailored to your customer needs and your assembly capabilities**

For our Distributor Partners we directly support you and your clients with **design services tailored to your customer needs and your supply chain**

For our PWB Fabrication Partners we directly support you and your clients with printed wiring board **design services tailored to your customer needs and your fabrication processes**

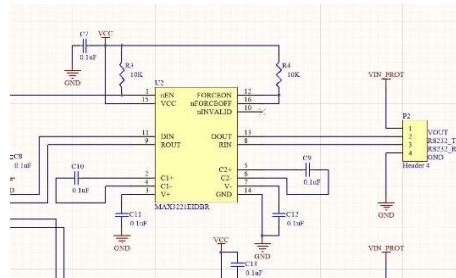
For our PWB Design Partners we provide direct support to assist when significant client backlogs **providing you added design capacity**

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Contact Information

PWB Design Service

PWB Design & Related Services



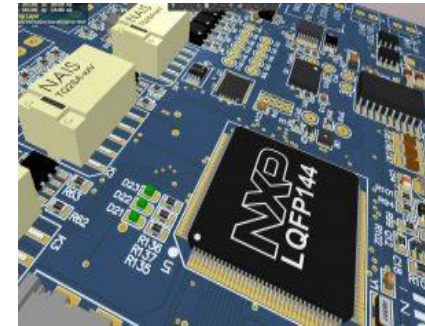
Phone Number: 260.224.0935

Email:
sales@pwbd.com
engineer@pwbd.com

Located: Huntington, Indiana

PWBDDesignService.com

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Printed Wiring Board Design Service

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Email:
sales@pwbd.com
engineer@pwbd.com

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Capabilities

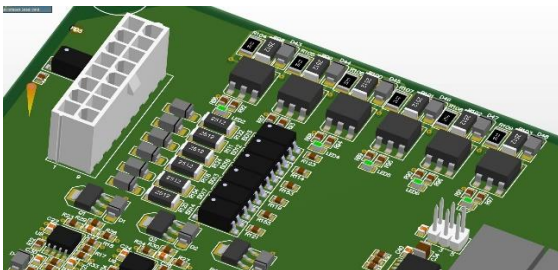
PWB Design Service designs printed wiring boards (PWB's) and provides supporting services

Capabilities Include:

- **PWB Schematic Entry**
- **Component Library Management & Footprint Generation**
- **PWB Layouts up to 18 layers**
- Convert through hole PWB designs to surface mount (cost savings, smaller board sizes, automated component placement)
- Convert designs to Altium Designer

Altium Designer is our preferred EDA Tool due to its large user base and exhaustive feature set

Example (4 Layer PWB):



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Added Capabilities Of PWB Design Service & Our Partners

- Cross reference of equivalent electronic components for current and new designs
- Eco System Support (Arduino, Micro Bit, Particle, Raspberry Pi, XBEE) including customized hardware design and software development
- Hardware Design
- Machining & 3D Printing
- Onsite Training
- Printed Wiring Board Assembly
- Product Life Cycle support from product concept, ramping production, full production to end of life support
- Prototype Development
- Solid Modeling
- Software Design

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Reference Information

Altium is an EDA Tool that improves the efficiency of laying out printed wiring boards. It is also highly regarded in the electronics industry

Cross Reference Electronic Components is a process to determine equivalent replacement components as either Through Hole or SMT Designs or conversion of a Through Hole Design to SMT as example

Eco System refers to a combination of PWB assemblies at minimum includes a microprocessor and often as a branded name such as Arduino, or Micro Bit has an architecture that additional PWB assemblies can provide specialized functionality such as various sensors, tactical devices or displays, etc....

EDA Tool is the abbreviation for Electronic Design Automation Tool used for entering electronic schematics and design layouts for printed wiring boards

Gerber File is the industry standard design file format that fully describe a unique PWB to be manufactured and includes the information for the trace routing, silkscreen, numerical control drill chart and other defining details

Layers for a PWB refers to the copper planes within a PWB. This can be from one plate as a single layer board to multiple layers usually added in pairs when having higher density circuits

Mixed Designs include both surface mount and through hole components

PWB is abbreviation for Printed Wiring Board which mechanically supports electronic components and electrical connections between components utilizing conductive tracks and pads. The construction of a PWB typically includes copper planes separated by a nonconductive insulating layer

Product Life Cycle refers to the phases of a product life cycle starting from the concept design phase, prototype phase, validation phase, confirmation phase, production launch phase, etc....

Silkscreen Layer refers to any markings added on either the top or bottom side of a PWB using a silkscreen process during PWB fabrication

Solid Modeling renders a design on a computer screen in a virtual environment as a 3D image for the benefit of design feasibility study, fit and form study, and other design studies. This capability also facilitates printing 3D versions of the designs as mechanical functional or nonfunctional samples for further review of the design

Surface Mount Designs use electronic components that are individually packaged to be attached to the surface of a PWB often for the benefit of automated placement and reduced board sizes.

Through hole designs use electronic components that have extending leads that are fitted through holes in the PWB