

HEADQUARTERS

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MANUFACTURING PLANT

100 Industry Ct. Nashville, NC 27856 252-462-4700

♥ MANUFACTURING PLANT

33 Business Park Dr, Unit #4 Branford, CT 06405 203-488-5795

Layout Platforms Supported:

- Mentor PADS
- Mentor PADS Professional
- Cadence Allegro
- Altium
- Mentor Xpedition

Schematic Platforms Supported:

- OrCAD
- Cadence Concept
- DxDesigner
- PADS Logic
- Altium

Additional Tools:

- Polar: Stackup Modeling
- Valor: DFA/DFM
- Blueprint-PCB: PWB/CCA Documentation
- Solidworks
- ✓ AS9100D
- **✓ ITAR Registered**
- ANSI/ESD S20.20-2014 Certified
- ✓ J-STD-001 Certified
- **✓ FDA Registered**
- ✓ NIST 800-171 Compliant
- Small Business
- SAM Registered

PRINTED CIRCUIT BOARD LAYOUT SERVICES & CAPABILITIES

ACDI is an industry leader in printed circuit board (PCB) layout and design. Founded in 1984, ACDI has completed over 10,000 designs. Our team of designers and component librarians has over a century of combined experience in the field. A high mix of clients, in various market sectors, contributes to ACDI's expertise across a wide-range of board technologies.

Core Competencies		Qualifications
 2-36 Layer Boards Organic and Ceramic Substrates 2-36 Layer Boards High-speed Digital, High-Frequency RF/ Microwave IPC Class 2 and Class 3 Designs 	 Up to 7 Lamination Cycles Up to 36 Layer Rigid-Flex Designs Backdrills, Blind/Buried Vias, Microvias Design for Cost/Assembly/ Manufacturability 	 400+ Designs Per Year 10,000th PCB Design Milestone 2018 Team Has Over a Century of Design Expertise

What We Need to Kick Off Your Project

REQUIRED

- Schematic (.pdf)
- Bill of Material (.xls)
- Netlist (.asc, .schdoc, [pstchip, pstnet, pstprt])
- Layout Software Preference

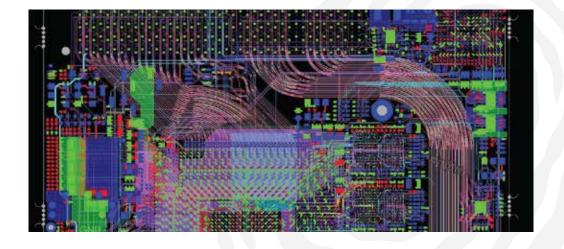
OPTIONAL

- Mechanical (.pdf or .dxf)
- SOW (critical nets, current draws, PCB/CCA part numbers, board markings, etc.)

Deliverables at Completion of Design

- Gerber Files (copper, silkscreen, soldermask, solder paste)
- Drill Files
- IPC-356 Netlist
- ODB++ or .asc

- PWB Drawing
- CCA Drawing
- Additional Files/Drawings Available by Request



PCB LAYOUT PROCESS FLOW CHART

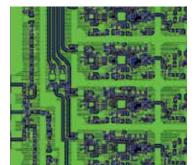




- Footprint Creation
- BOM/Schematic Check
- Board Outline Built In
- Netlist Integrity Check
- Fixed Components Placed



- Designer Assigned
- Introduction Call to Discuss Board Strategy



PLACEMENT

- Components Placed on Board
- Mechanical Models Available for Review
- Design Sent for Placement Review

STACK-UP DEVELOPMENT

- Layer Count
- Copper Weights
- Controlled Impedances
- Dielectric Selection
- ROHS?
- Via Topology

CRITICAL ROUTING

- RF
- Matched Length Busses
- DDR

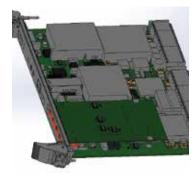
- Differential Pairs
- CLKs
- Sent for Routing Review

POWER/GND PLANES

- Splits Put in for Planes
- Sent for Routing Review
- 1 Amp Per Via
- Copper Calculations Made

ROUTING

- Hand-routed or Auto-routed
- Sent for Routing Review



APPROVAL

 Customer signs off on design, indicating there will be no more changes

INTERNAL REVIEWS

- 3 ACDi Designers conduct Peer Review
- Netlist Analyzer
- Valor for DFM
- DRC Check



- Printed Wiring Board (PWB)
 Drawing
- Panel Drawing
- Circuit Card Assembly (CCA)
 Drawing



POST PROCESSING

Generation of All Deliverables