

Printed Circuit Boards

i3 Electronics: The Total Package for High Quality, High Density and High Reliability

At the leading edge of printed circuit board development for more than 45 years, i3 Electronics delivers high quality, high density, high-layer count PCBs that provide long term performance.

We offer a total solution for your PCB fabrication needs:

- Physical design and modeling
- Technology development
- Applications engineering
- Quality engineering
- Field reliability simulation and analysis
- After sales support

And we do all that under one roof, saving you the hassle of shuttling and coordination over several sites. That helps you achieve shorter time to market cycles on new products, superior product performance and the competitive edge you need.

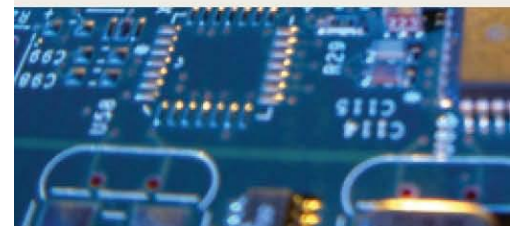
Our cost effective PCBs are a great solution for mission critical and high performance applications found in:

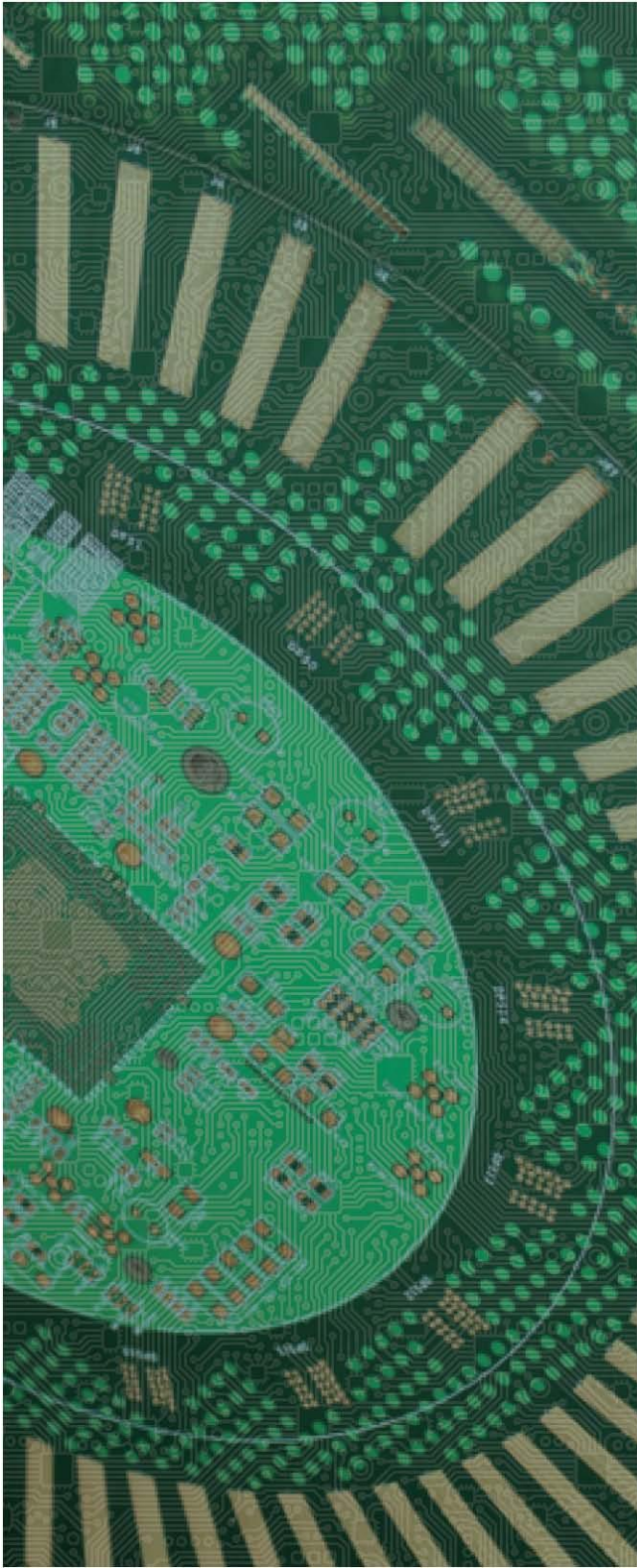
- IT, Servers and Super Computing
- Defense and Aerospace
- Homeland Security and Government
- Automated Test Equipment

Our dedicated quickturn capability reduces fabrication cycle times to less than five days and focuses on providing advanced technology, high performance and high reliability products.

FEATURES

- Large PCB capability
- Quickturn PCB fabrication capability reduces cycle times to less than 5 days
- High density wireability options using a wide variety of materials including High Tg FR4, PTFE, polyimide and low loss (low Df/low Dk) high performance materials
- A wide variety of surface finishes from OSPs to multiple metal surface finishes (including SnPb, Pd, NiAu and Ag)
- Precision layer to layer registration
- Plating aspect ratios up to 20:1 (10 mil drilled via)
- Design assistance available from application engineers specializing in PCB solutions
- Industry standard testing combined with extended testing and advanced techniques for high reliability
- Utilizing Z-interconnect technologies to increase wiring density and improve electrical performance
- Providing embedded capacitance and resistance





TYPICAL VOLUME PRODUCTS

Panel Size	610 mm x 711 mm (24"x28") 457 mm x 610 mm (18" x 24")
Materials	High Tg FR4, N4000-13, Polyimide, Megtron
Layer Count	8-38
Thickness	1.55 mm-6.35 mm (0.061"-0.250")
Registration (drill to pad)	0.125 mm (0.005") min
Aspect Ratio	14:1
Minimum Drilled Via	0.25 mm (0.010") min
Blind Via	0.85:1 (mechanical and laser)
Finished Blind Via	0.125 mm (0.005") min
Minimum Lines/ Spaces External	0.1 mm/0.1 mm (0.004"/0.004")
Minimum Lines Spaces Internal	0.075 mm/0.0875 mm (0.003"/0.0034")
Impedance Tolerance Cu	+/- 10%
Weights	0.5 oz.-3 oz.
BGA Pad	0.80 mm (0.032")
Pitch Via Plug, Fill, Tenting	Yes
Edge Plating	Yes
Soldermasks	LPI and dry film OSP, ENIG, Hard Au, Soft Au,
Surface Finish	HASL, Sn/Pb
Certifications	IPC Classes 2 and 3, ITAR and RoHS compliant, AS 9100, ISO 9001, ISO 13485 and Nadcap certified

ADVANCED TECHNOLOGY PRODUCTS

Panel Size	610 mm x 813 mm (24"x32")
Materials	N4000-13 SI, PTFE, filled High Tg FR4 (for Pb-free assembly), other Low Loss
Layer Count	70+
Thickness	1.55 mm-6.35 mm (0.061"-0.250")
Registration (drill to pad)	0.0875 mm (0.0034")
Aspect Ratio	20:1
Minimum Drilled Via	0.20 mm (0.008")
Blind Via	1:1+
Finished Blind Via	0.075 mm (0.003")
Minimum Lines/ Spaces External	0.075 mm/0.075 mm (0.003"/0.003")
Minimum Lines Spaces Internal	0.05 mm/0.075 mm (0.002"/0.003")
Internal Impedance Tolerance Cu	+/- 5% or better
Weights	4 oz.-6 oz.
BGA Pad Pitch Via	0.50 mm (0.020")
Plug, Fill, Tenting	Yes
Edge Plating	Yes
Soldermasks	LPI and dry film
Surface Finish	I Ag, I Pd,
Buried Resistors	Etched and laser trimmed
Certifications	IPC Classes 2 and 3, ITAR and RoHS compliant, AS 9100, ISO 9001, ISO 13485 and Nadcap certified

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