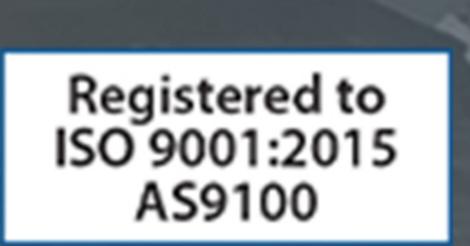


PROMISES KEPT. DEPENDABILITY YOU CAN TRUST.

www.excello.com















WHO WE ARE

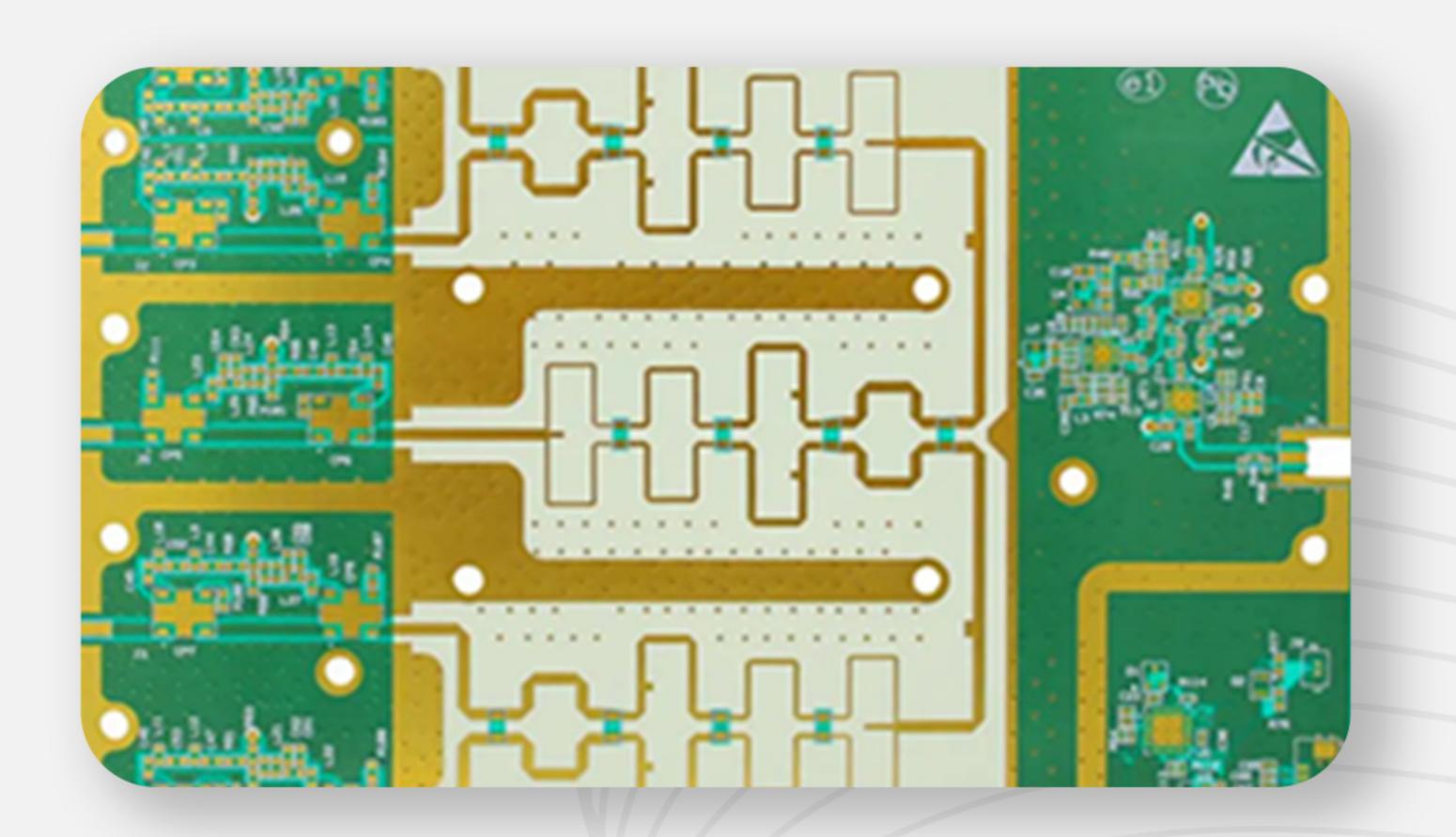
- Established in 1992
- Prototype to Production
- > Owner Managed
- > Facility size 45,000 ft²
- 92 employees
- Operating at 65% capacity
- Debt-Free & Financially Strong

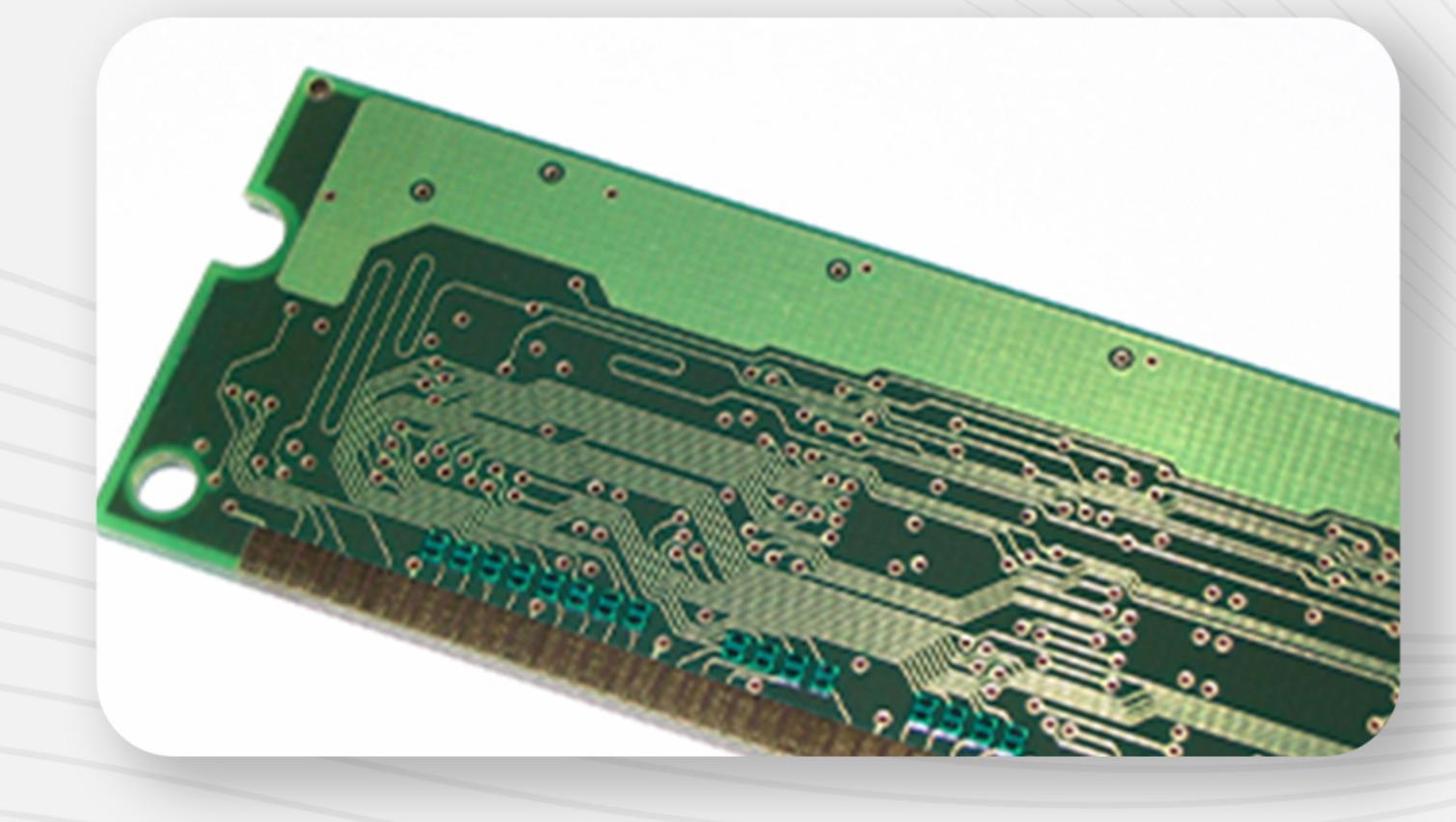


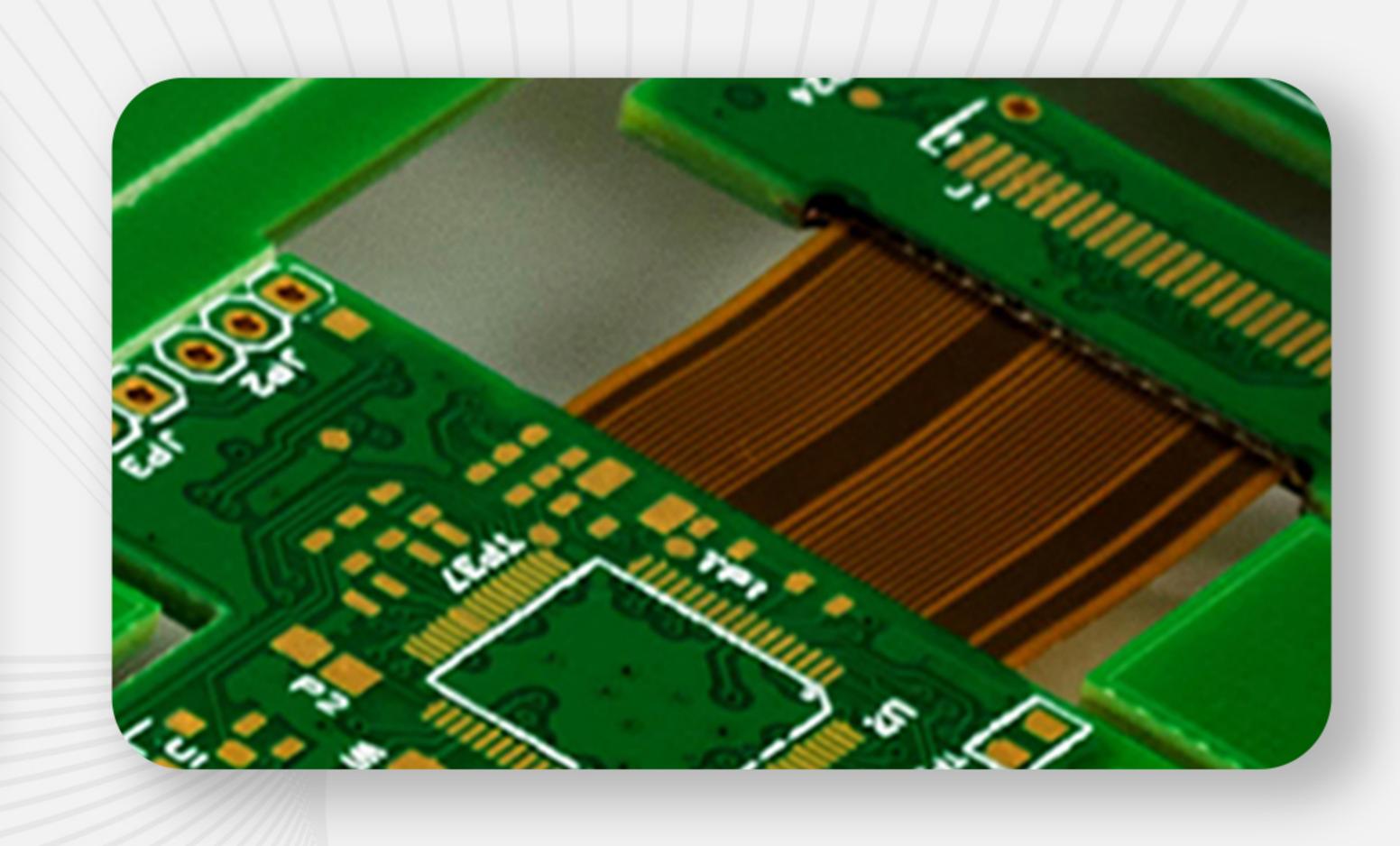


WHATWEDO

We provide Full Array of PCB Manufacturing ranging from rigid, rigid-flex, HDI, Flex and more. Extending from simple single sided to up to 24 layers of complex PCB.







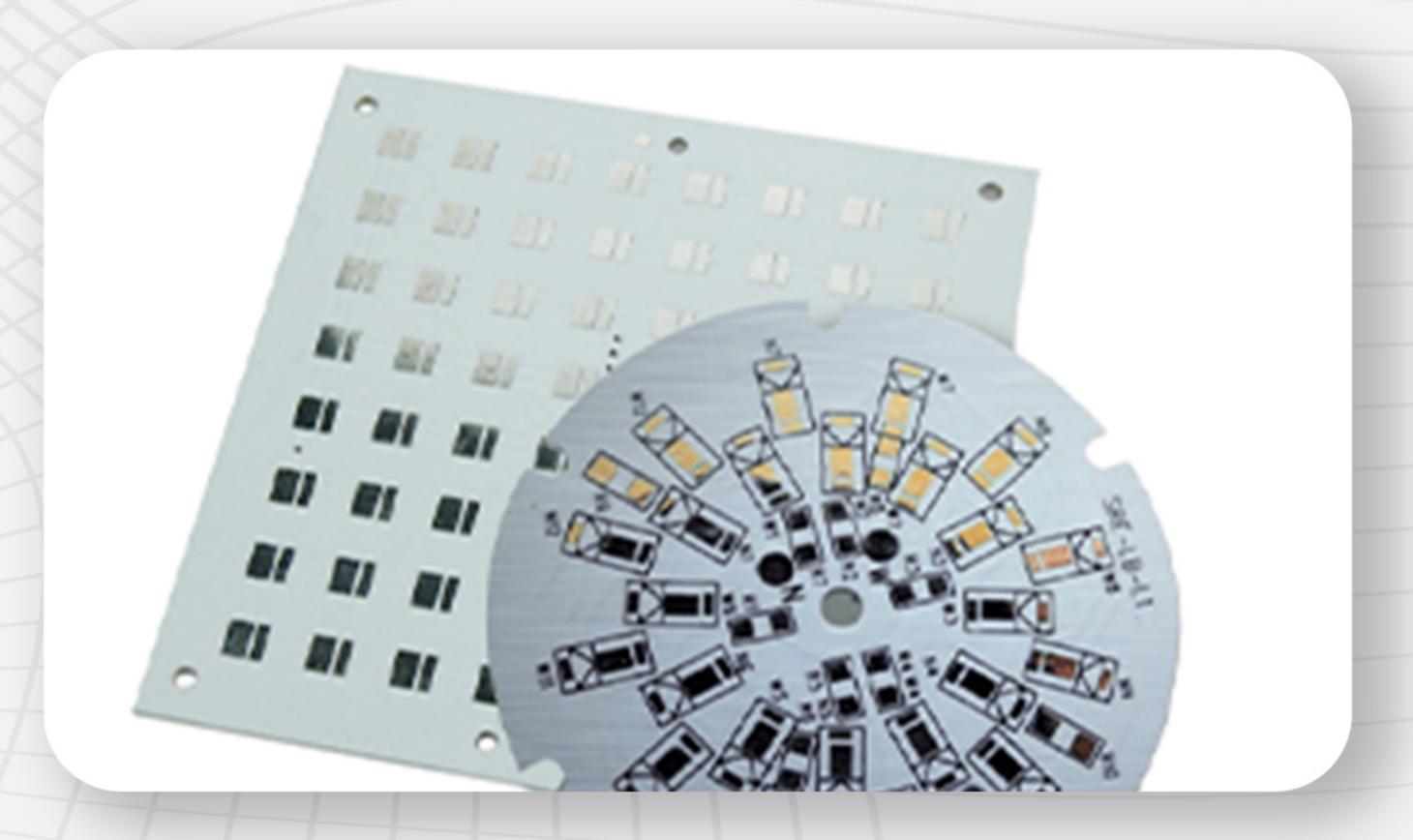
RF and Microwave Boards

Rigid PCB

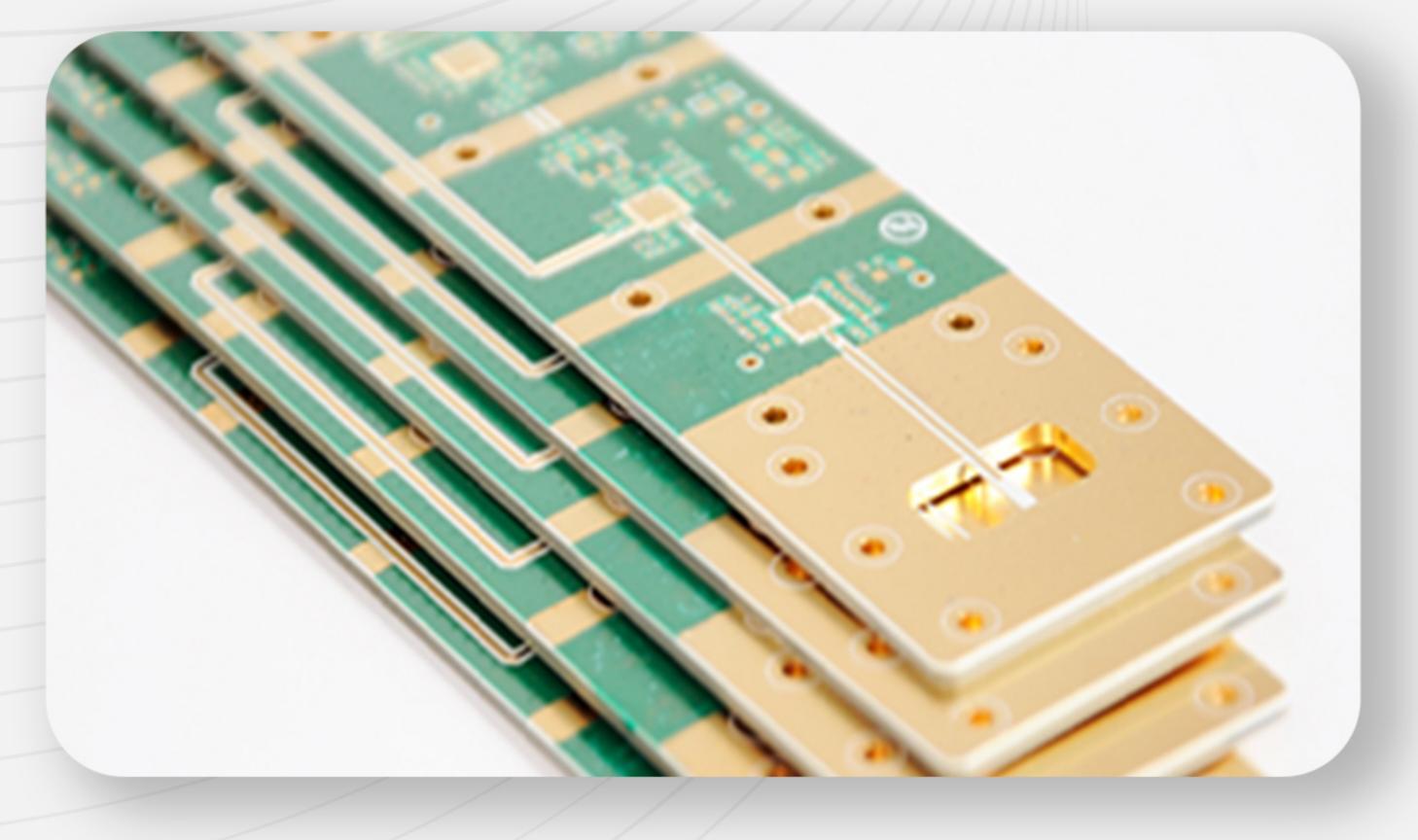
Rigid-Flex PCB



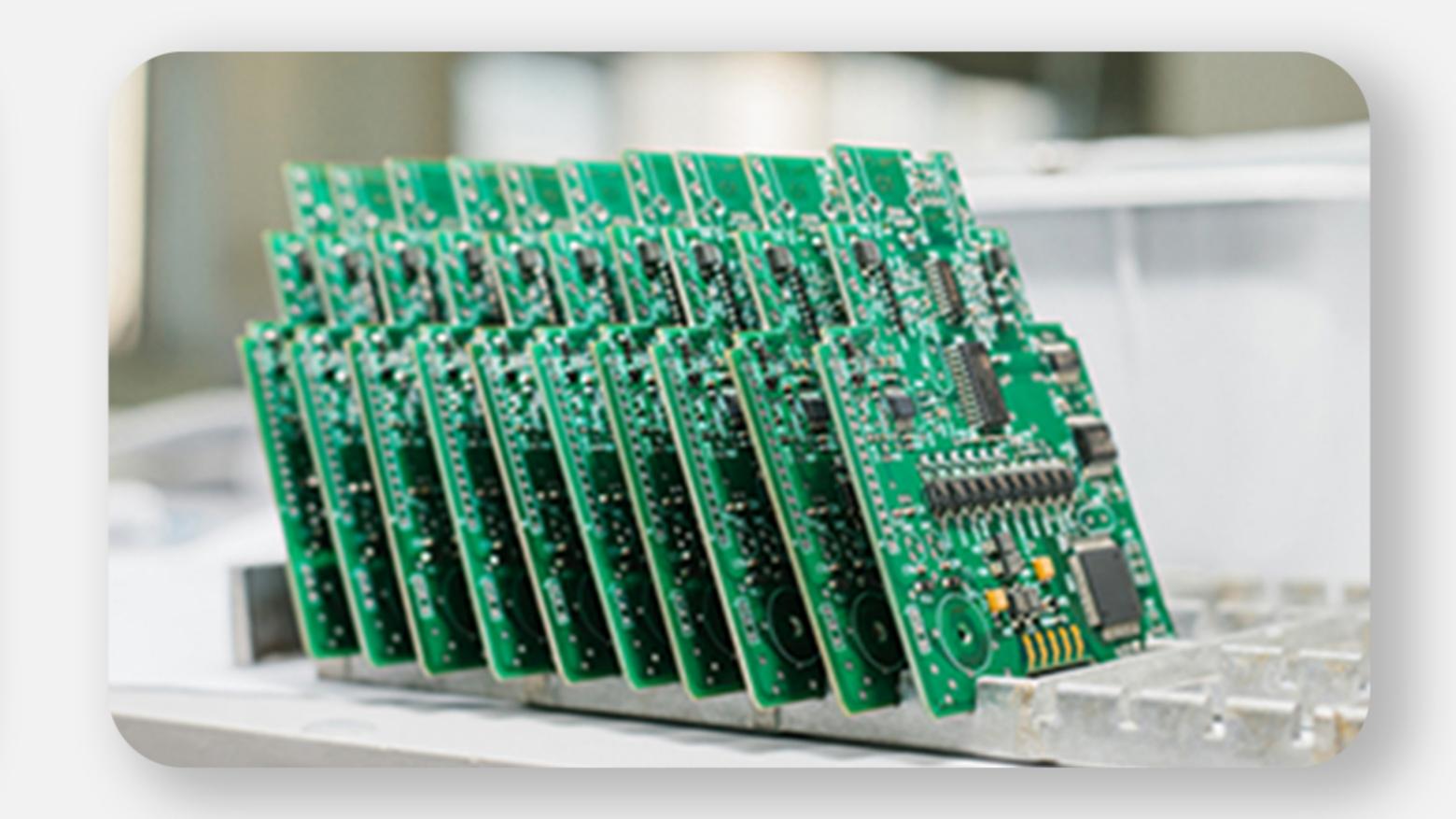
Flexible PCB



Metal Cores PCB (Aluminum & Copper)



High Copper PCBs (Up to 20oz)



Prototypes through mid-volume production





OUR VISION

Our mission is to attract, develop, and maintain long-term successful customers while optimizing the capacity and capability of our current facilities.

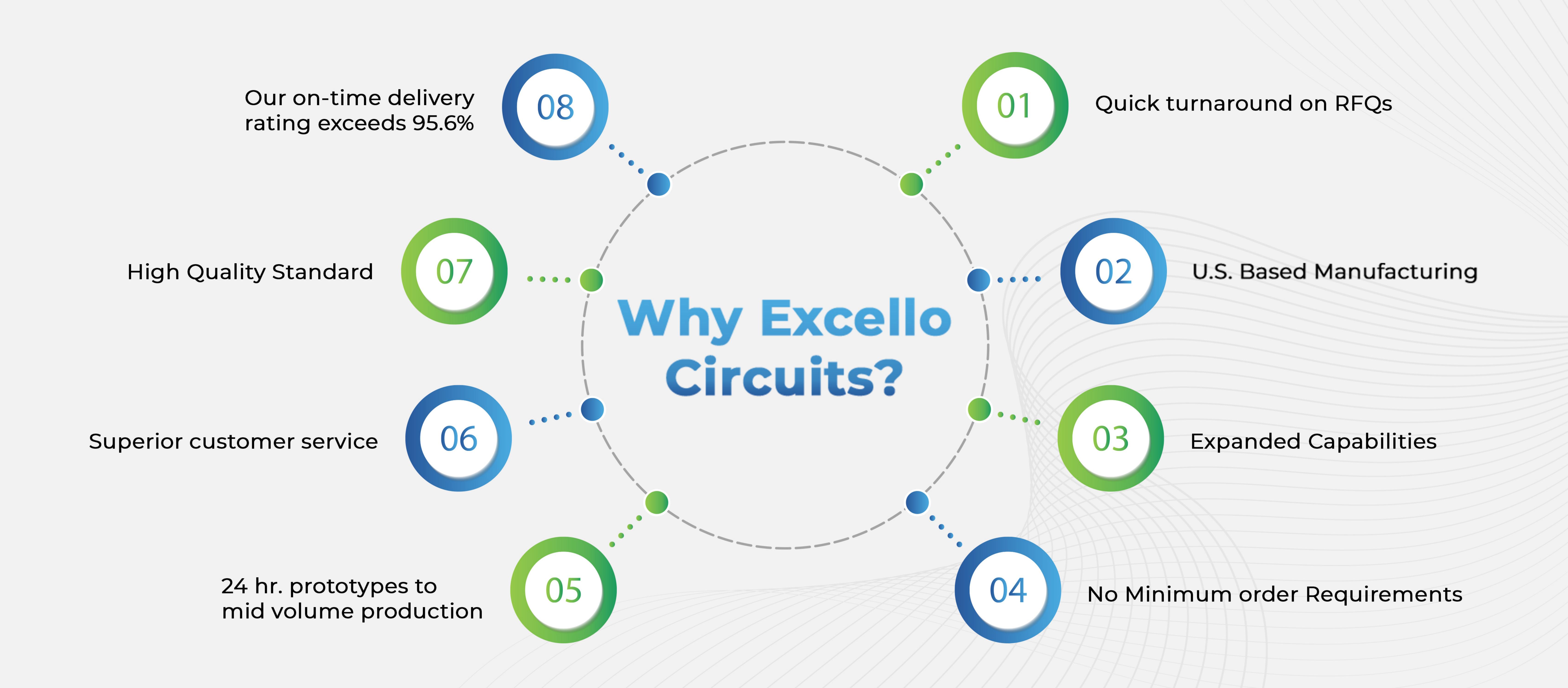


OUR MISSION

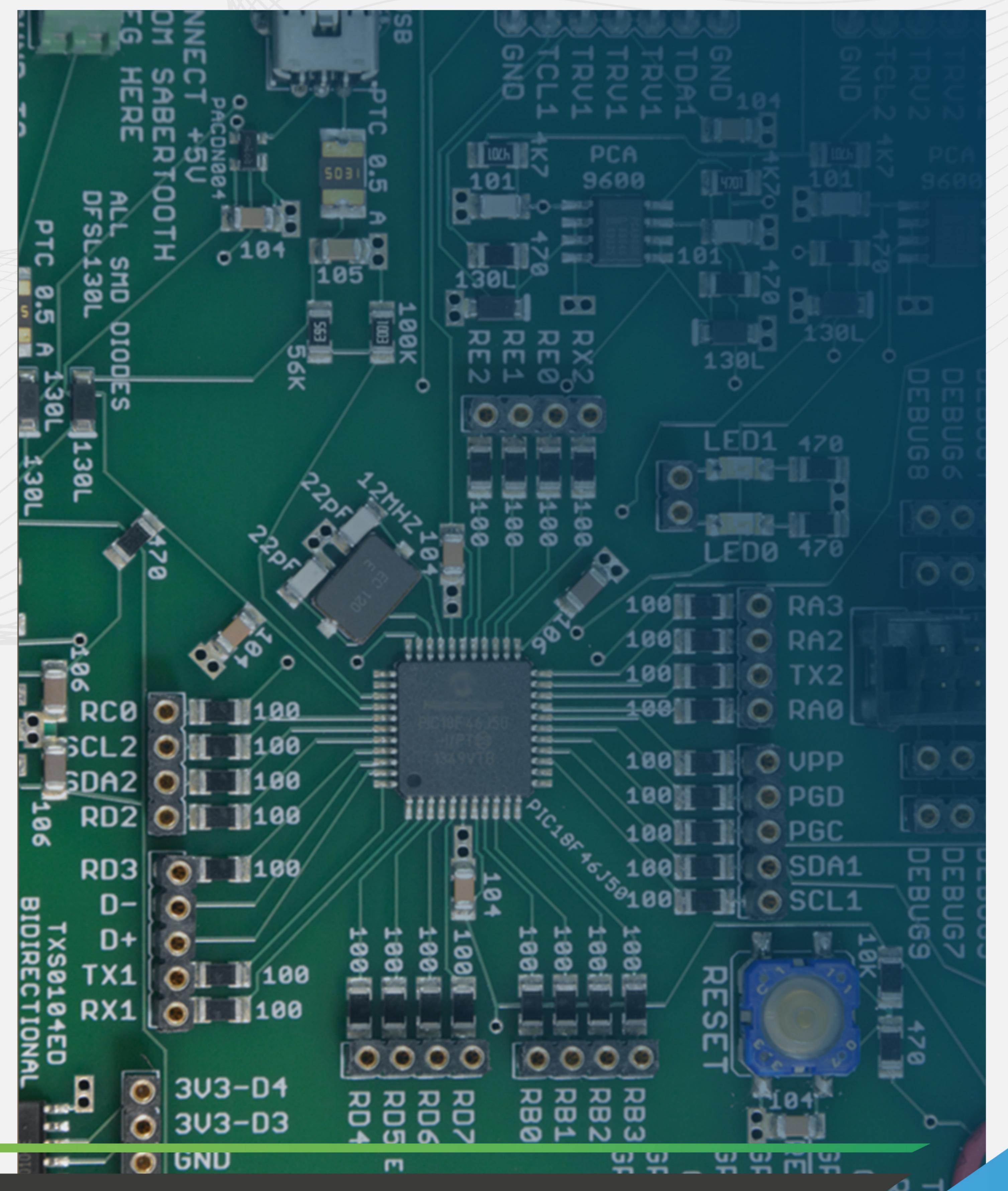
To be the most preferred printed circuits board prototype manufacturer, and to be the epitome of quality, reliability and service in our industry.









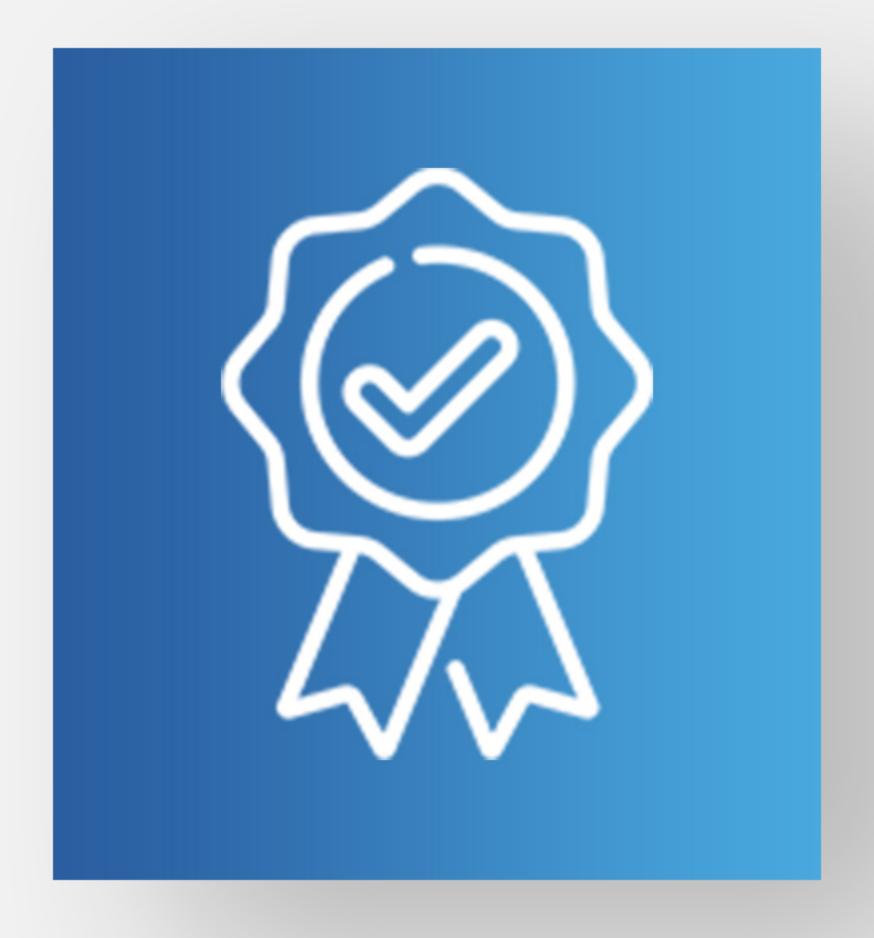


OUR ACCREDITATIONS

- AS9100D Certified
- TAR Registered
- IPC Member
- > UL Listed
- ISO 9001:2015 Certified
- ISO 13485:2016 Certified

QUALITY ASSURANCE AND INSPECTION

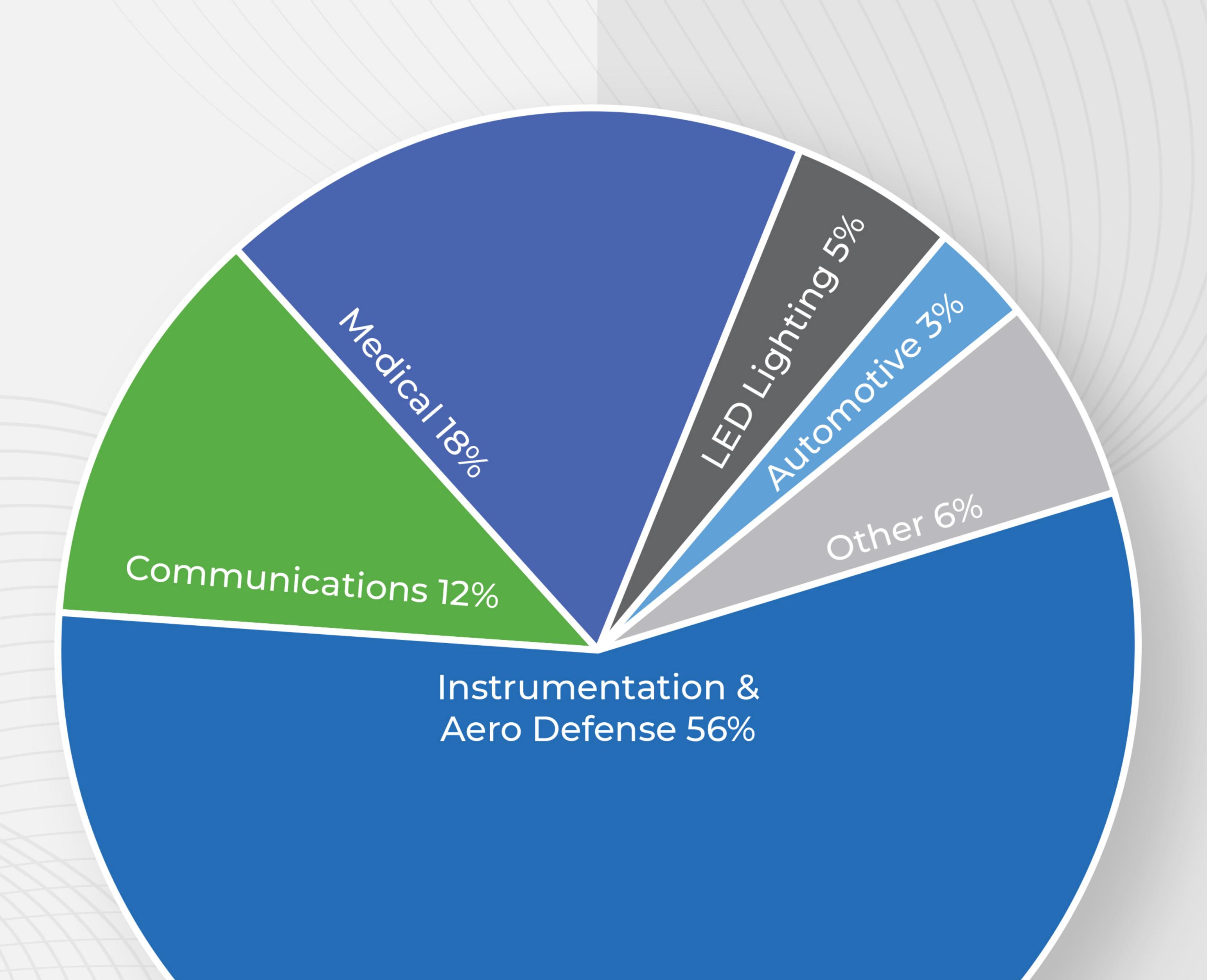
- UL & IPC Approved Laminates
- 100% AOI & Visual Inspection
- > E-Test: Netlist Flying Grid Test to 250V
- High Tech Lab with 400X Scope
- Certificates of Compliance
- Cross-Section Analysis
- Controlled Impedance Testing



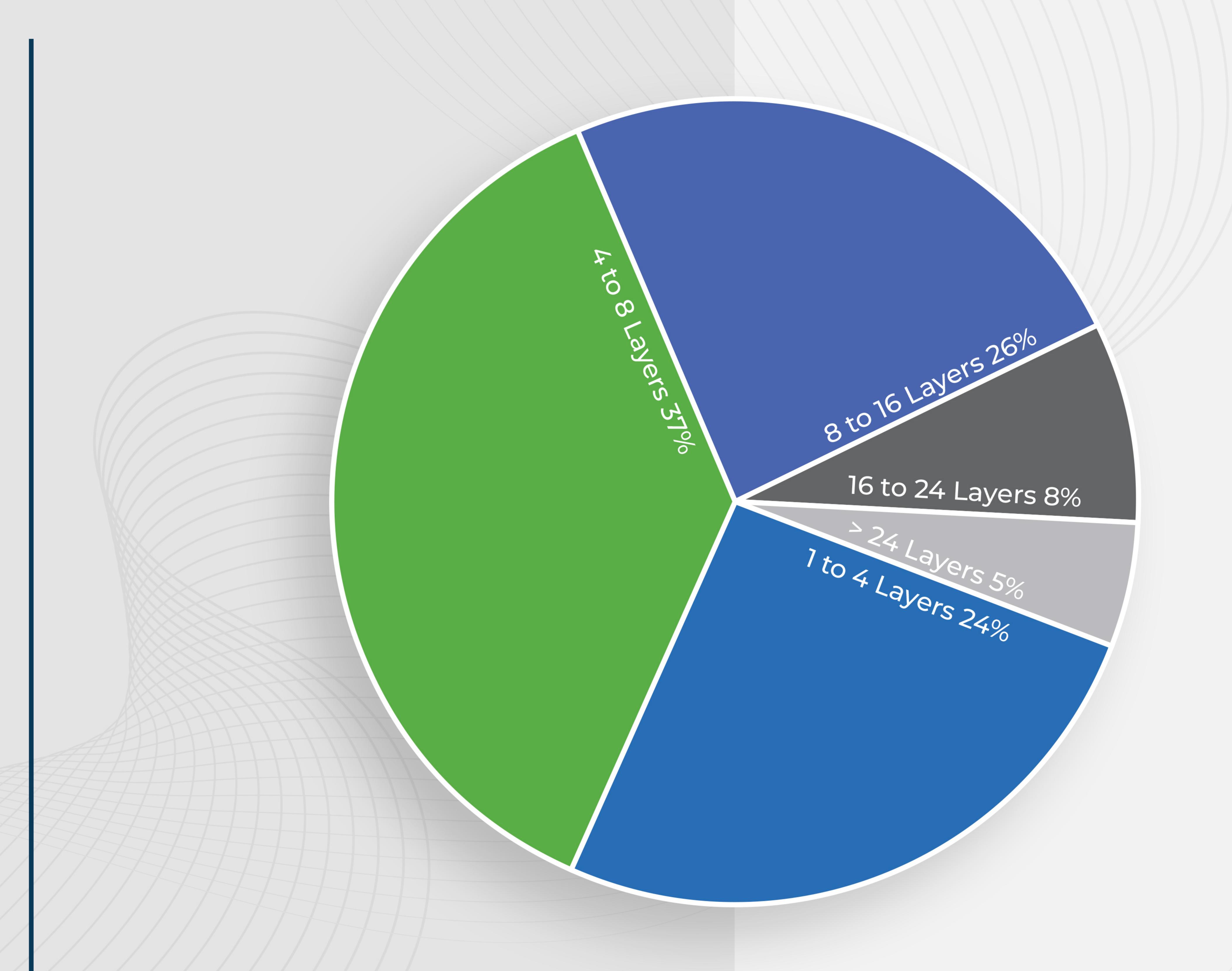


PRODUCT SEGMENT

- Instrumentation & Aero defense
- Communications
- Medical
- LED Lighting
- Automotive
- Other







PRODUCT MIX BY LAYER COUNT

- 1 to 4 Layers
- 4 to 8 Layers
- 8 to 16 Layers





CAPABILITY AND TECHNOLOGIES

Leadtime: Same Day – 4 Weeks

Layer Count: 0 – 32 Layers

Cu Weight: Up to 20 oz

Trace/Space: Down to .003

Via-In-Pad

Blind & Buried Vias

Laser Direct Imaging

Cavity Boards

Stacked Microvias

Additional Services & Capabilities

Customizable Serialization

Control-Depth Drilling (stub removal)

Plasma Etchback

Castellated Vias

Edge Plating

Plated Slots/Countersink/Counterbores



















Laminates: Excello Offers a wide range of material options such as enhanced epoxy laminate, ultra-low moisture materials, high-frequency ceramic filled laminates, RoHS compliant and more.



CAPABILITY AND TECHNOLOGIES

Standard Features	Standard	Advanced
Maximum Layer Count	16	32
Maximum Panel Size	18"x24"	21"x24"
Outer Layer Trace/Spacing	.005" / .005"	.003" / .003"
Inner Layer Trace/Spacing	.005" / .005"	.003" / .003"
Maximum PCB Thickness	0.250"	0.250"
Minimum PCB Thickness	.008"	.004"
Minimum Mechanical Drill Size	.008"	.005"
Maximum PCB Aspect Ratio	10:1	15:1
Maximum Copper Weight	6oz	20oz
Minimum Copper Weight	1/2oz	1/4oz
Minimum Core Thickness	0.004"	0.001"
Minimum Dielectric Thickness	0.003"	0.002"
Minimum Pad Size Over Drill	0.018"	0.016"
Solder Mask Registration	± 0.002	± 0.0015
Minimum Solder Mask Dam	0.004"	0.0025"
Copper Feature to PCB edge	0.015"	0.010"
Tolerance on Overall Dimensions	± 0.005"	± 0.002"

HDI Features	Standard	Advanced
Minimum Microvia Hole Size	0.004"	0.003"
Capture Pad Size	0.010"	0.009"
Glass Reinforced Dielectrics	Y	Y
Maximum Aspect Ratio	0.7:1	1:1
Stacked Microvias	Y	Y
Copper Filled Microvias	Υ	Υ
Buried Filled Vias	Υ	Υ
Maximum No. of Buidup Layers	2+N+2	3+N+3

PCB Technology	Standard	Advanced
Rigid-Flex & Flexible Circuits	Y	Y
Buried and Blind Vias	Υ	Υ
Sequential Lamination	Y	Υ
Impedance Control	± 10%	± 5%
Hybrids & Mixed Dielectrics	Y	Υ
Aluminum Backed PCB	Υ	Υ
Buried Capacitance	N	Υ
PCB with Cavity	N	Υ
Non-Conductive Via Fill (VIP)	Y	Υ
Conductive Hole Fill	Y	Υ
Depth Control Drill and Rout	Y	Υ
Backdrill	Y	Υ
Edge Plating	Y	Υ
Etch Back	Y	Υ
In-Board Beveling	Y	Y
2-D Bar Code Printing	Y	Υ

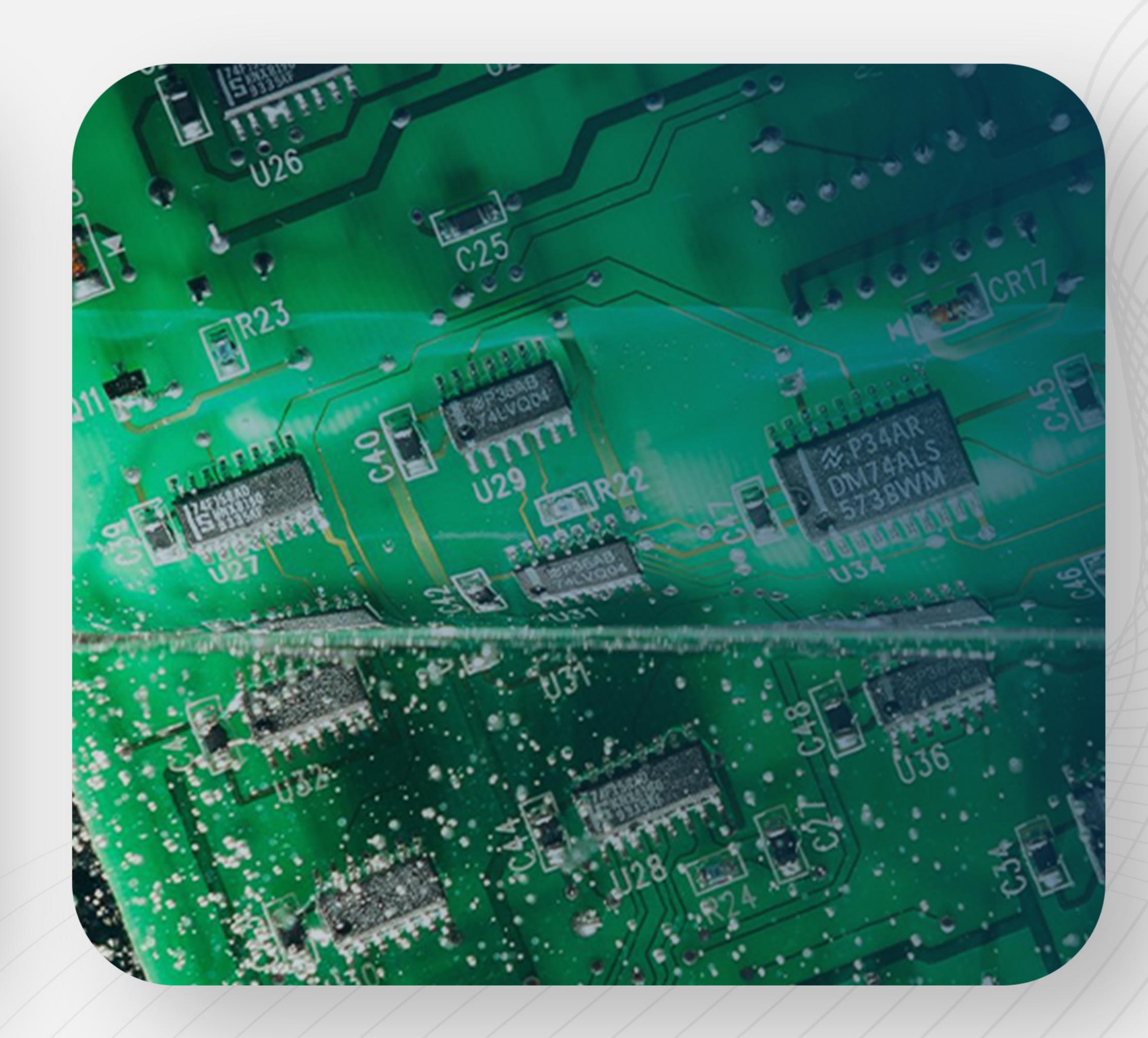


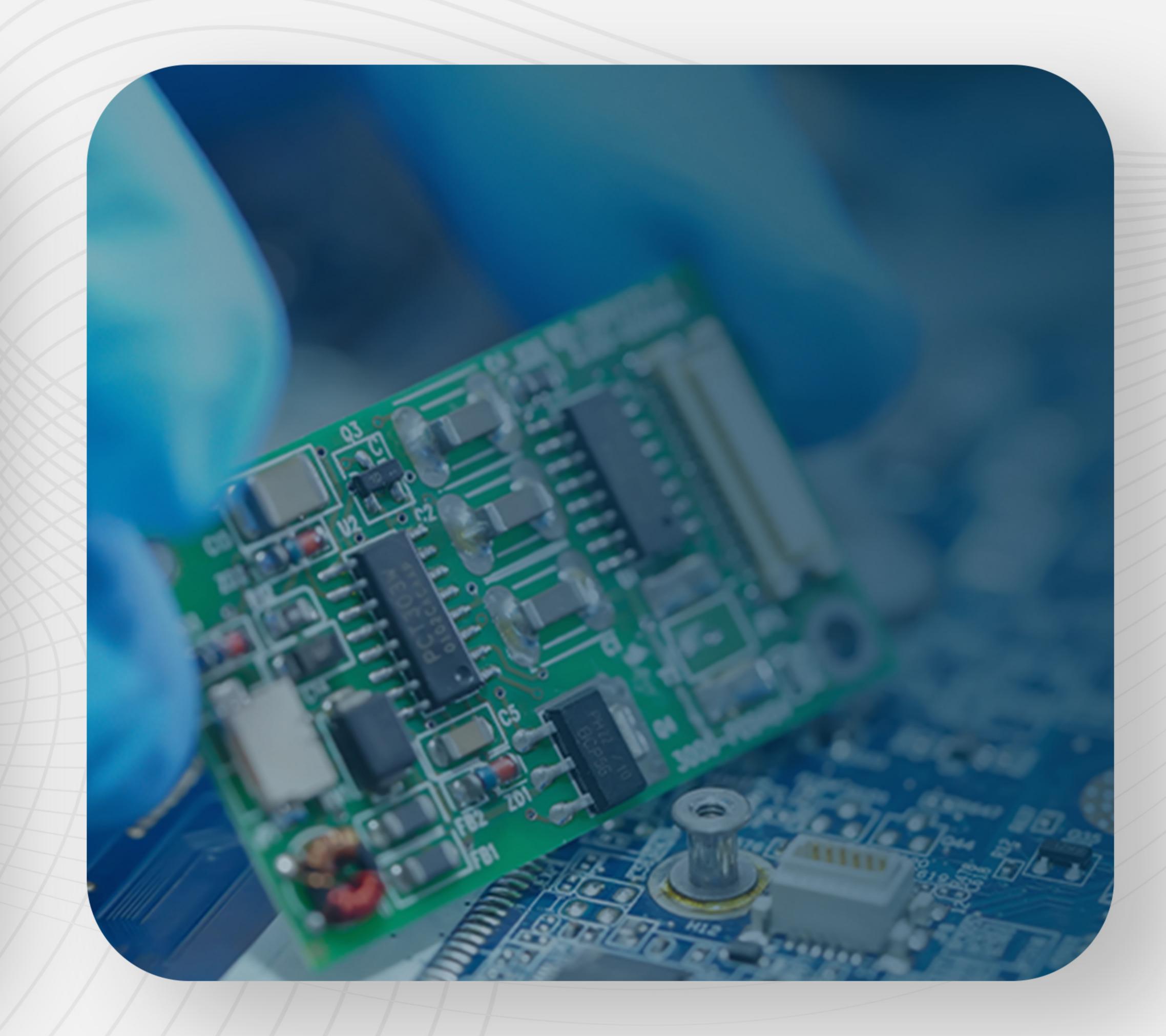
LAB CAPABILITIES

- Full in house chemical bath analysis
- Full in house micro-section capabilities
- Ionic cleanliness testing when required
- Solderability testing

> Thermal Stress Test









OUR STATE-OF-THE-ART DRILLING/TESTING EQUIPMENTS









Key Drill Equipment

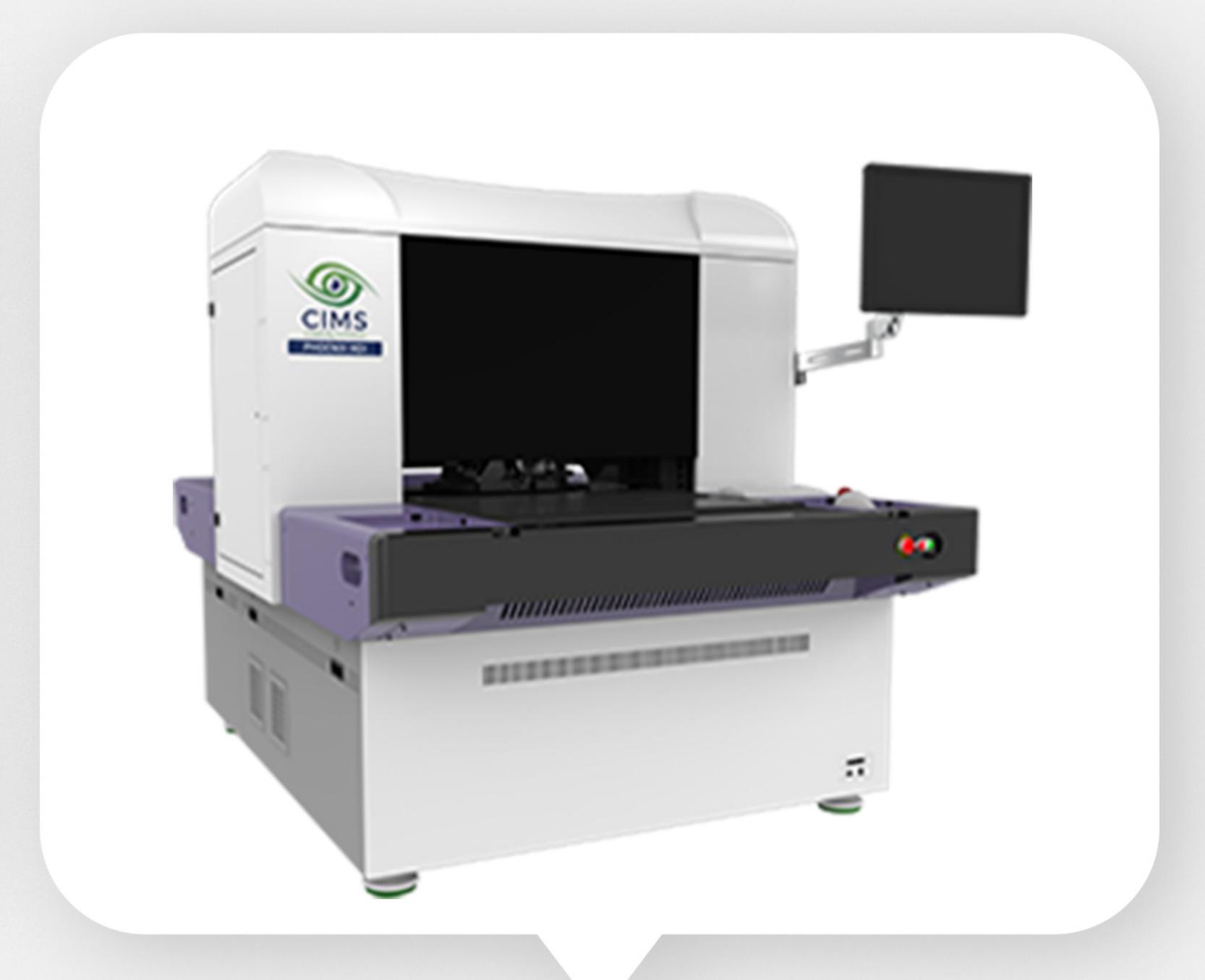
Key Printing Equipment



OUR STATE-OF-THE-ART DRILLING/TESTING EQUIPMENTS





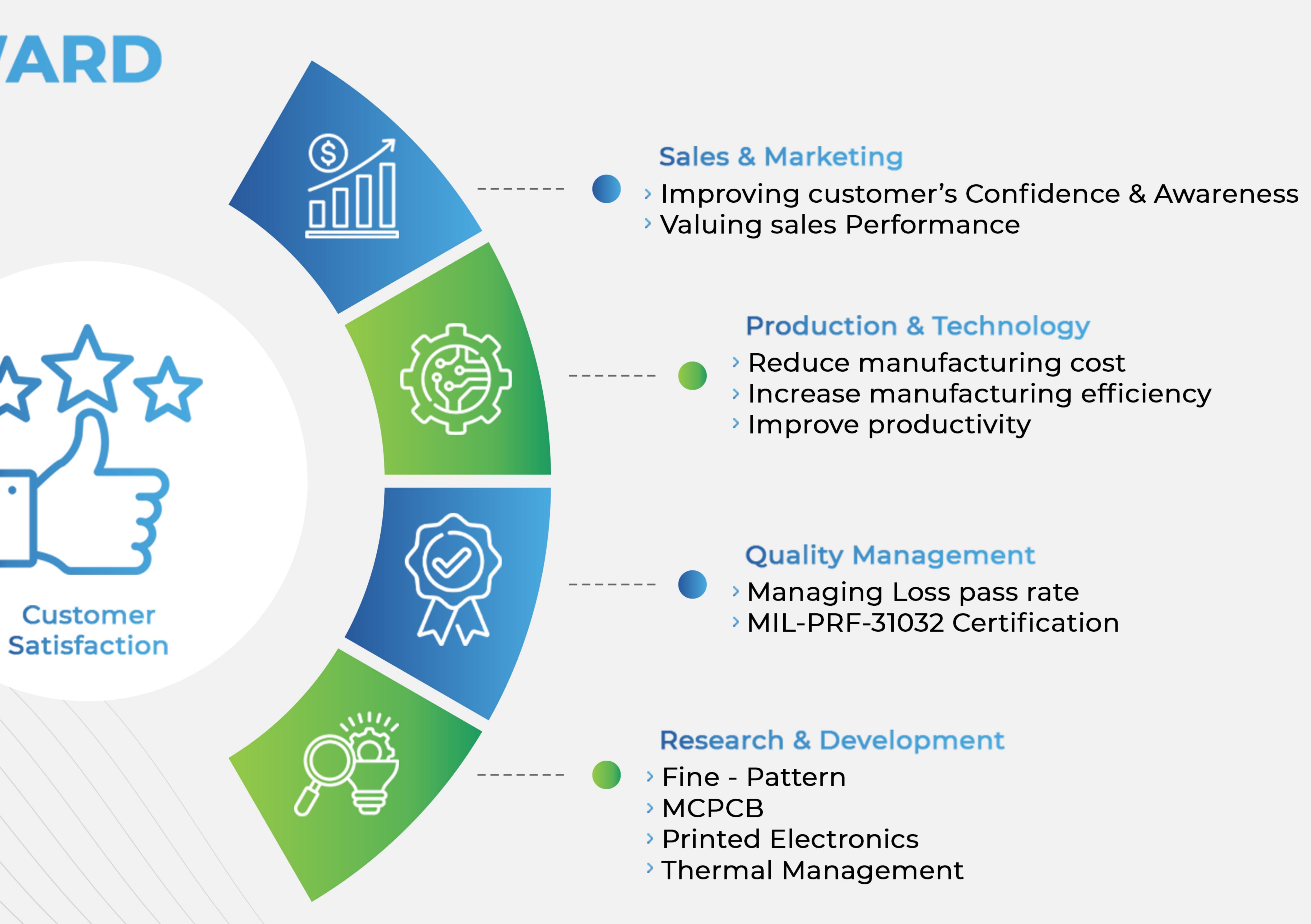


Rigid/Flex Equipment

AOI testing Equipment



GOING FORWARD





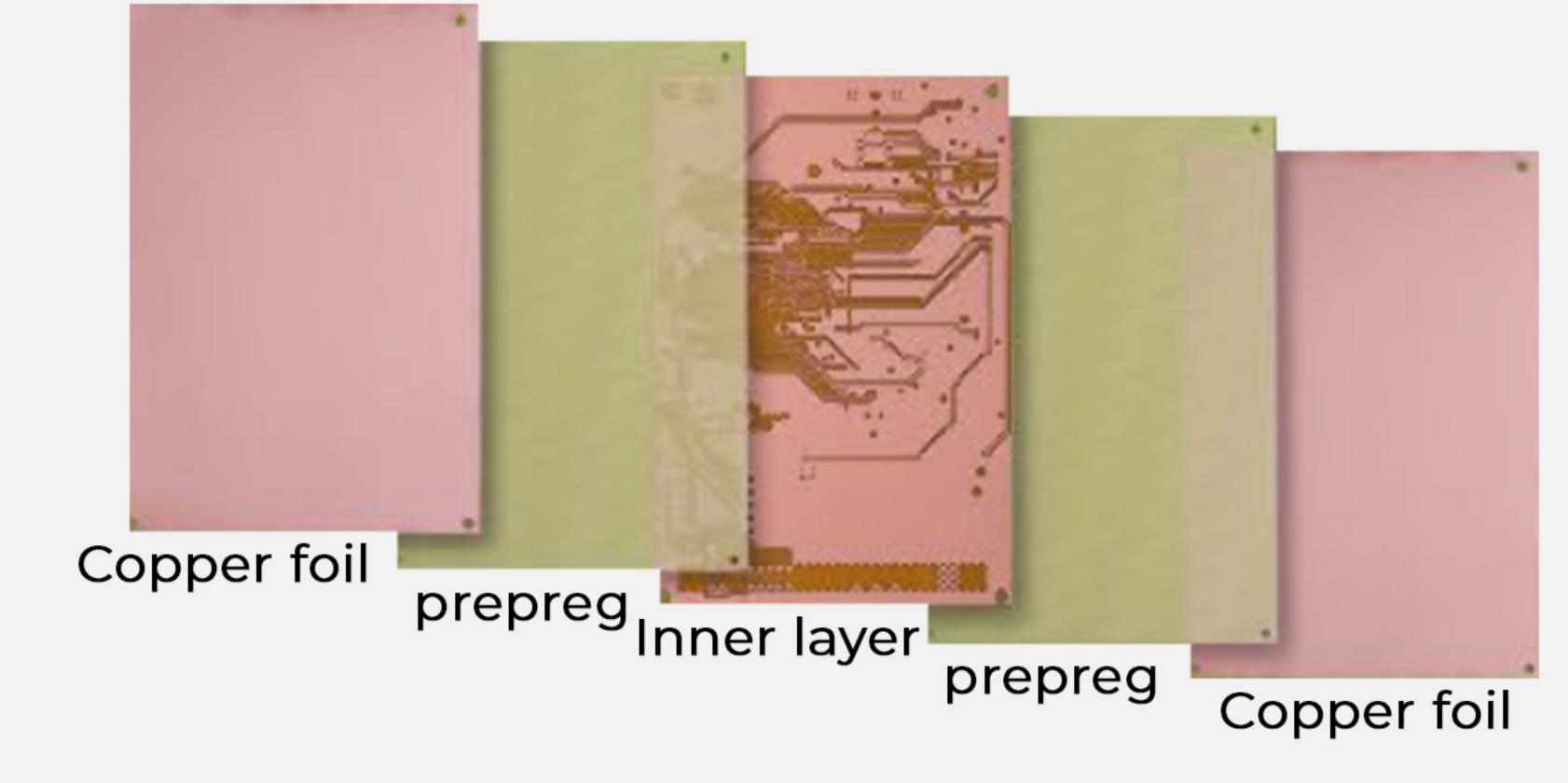
Final Surfaces

Hot air levelling (HAL)

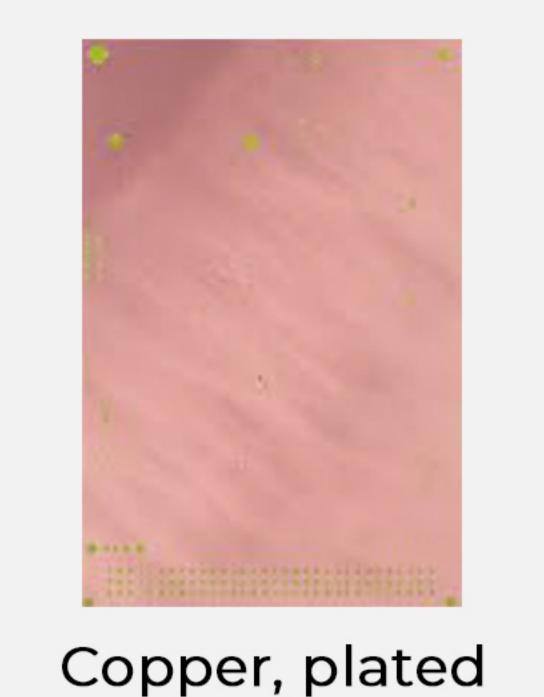


MANUFACTURING OF A PRINTED CIRCUIT BOARD (PCB)



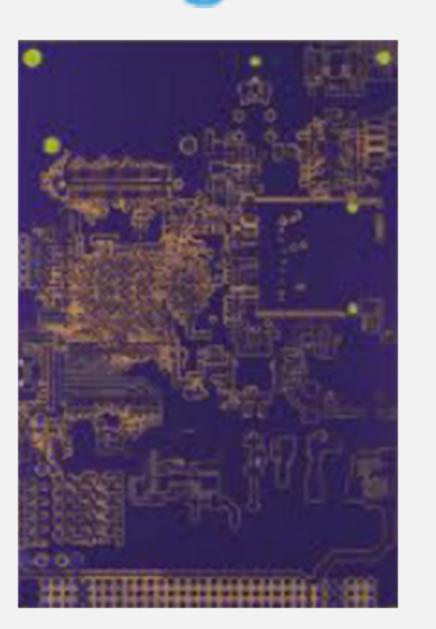


Panel platting



Circuit pattern

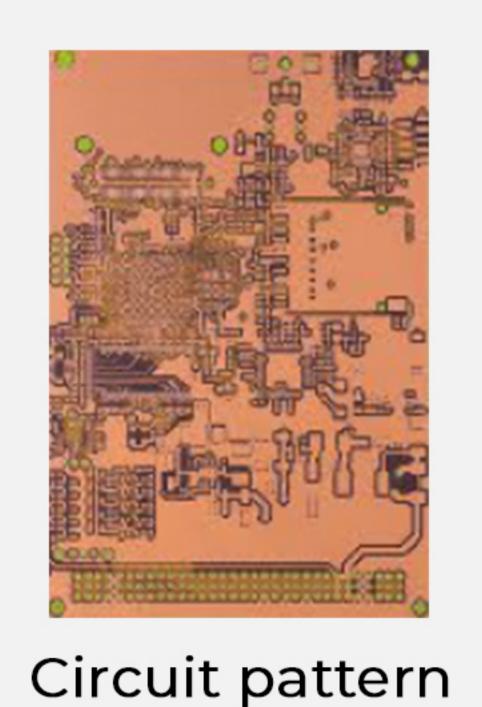
dry film, developed



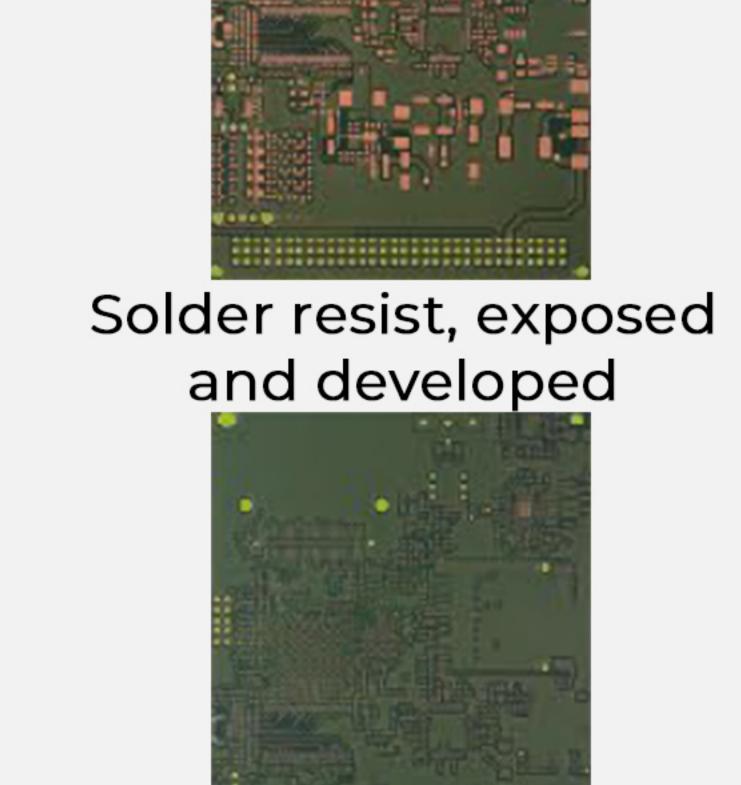
Circuit pattern

etched,

with dry film



dry film, removed





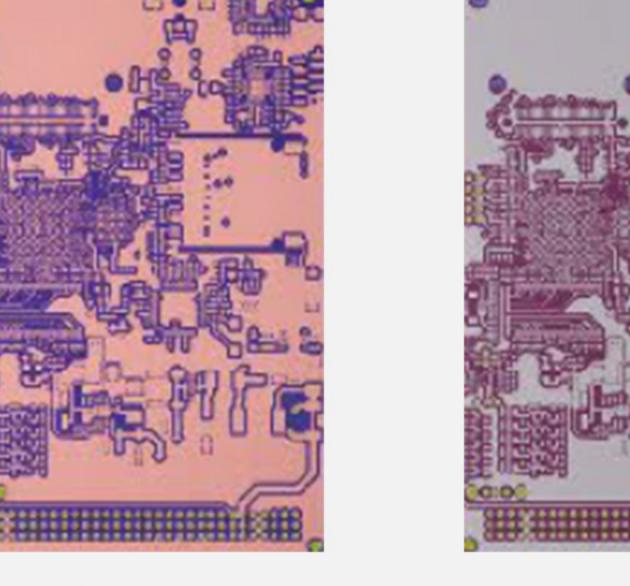
Solder resist, coated

Ni/Au or ENEPAG Organic surface protecttion (osp)

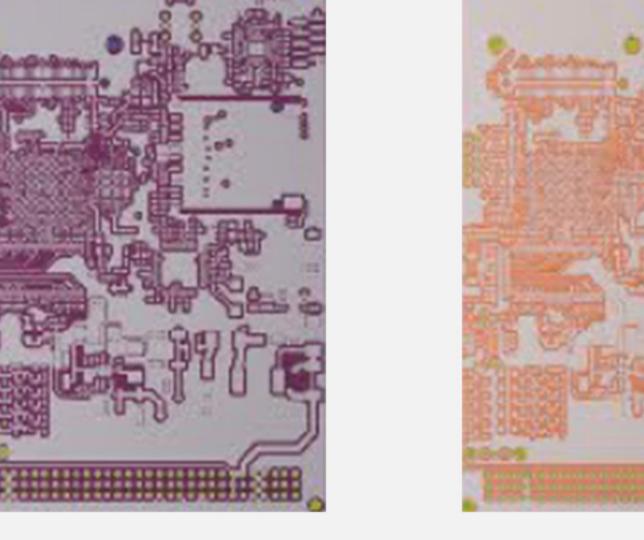
Desmear/Direct Plating

Laminated

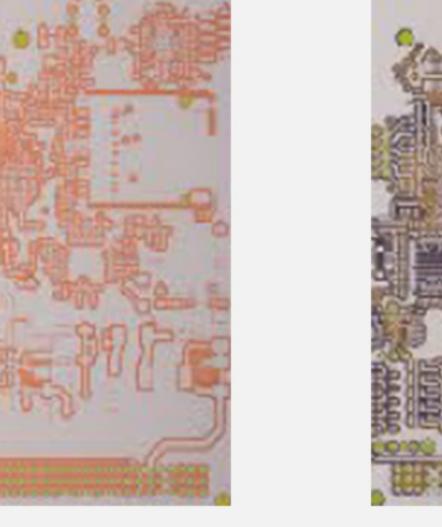
Drilled

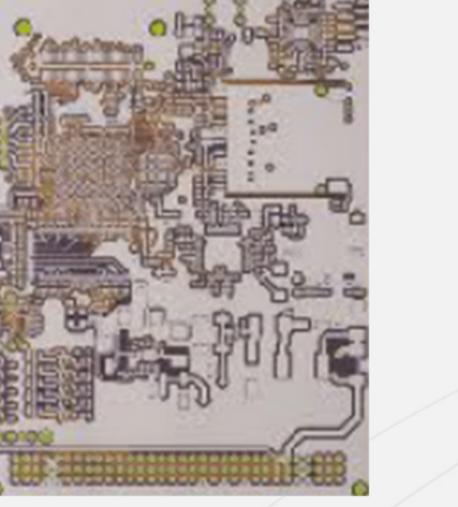


dry film, developed

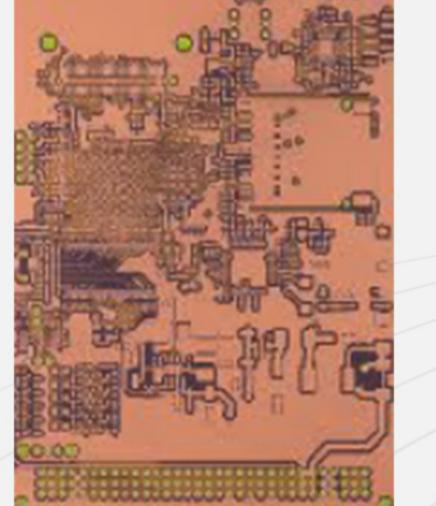


tinned





etched



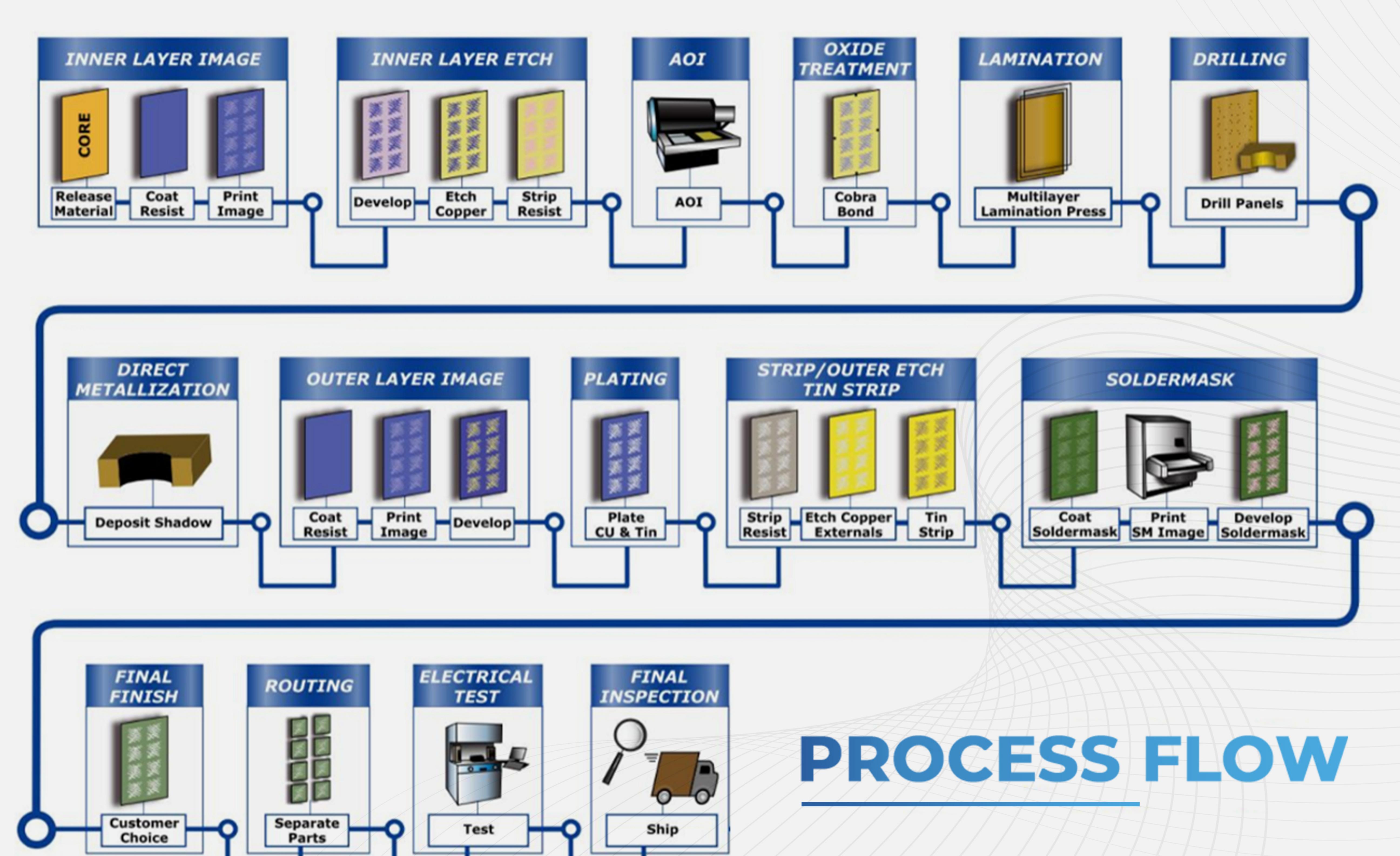
Circuit pattern Copper, plated, Circuit pattern dry Circuit patern, Tinned, removed

Pattern platting

film, removed

Chemical tin









LOCATION & CONTACT US

Excello Circuits, Inc. 5330 E Hunter Ave. Anaheim, CA 92807

Tel: 714.993.0560 Fax: 714.462.4870

www.excello.com info@excello.com



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