

# PRINTED CIRCUIT BOARDS & ASSEMBLY

**NEED JUST A PIECE?**  
**NO PROBLEM!**

TAKE ADVANTAGE OF OUR NEW CUSTOMER  
WEB SPECIAL

2 Layers

4 Layers

**\$25** EA.

up to 60 sq. in.

**\$50** EA.

up to 60 sq. in.

**FREE Tooling, Mask & Silk Screen,**  
**No Minimum Quantity! Even one piece is OK.**  
First Web order, one per new customer.

**PLUS**  
on your next order we will give you

**50% OFF**

**MAXIMUM \$1,500**  
**DISCOUNT**

**This is a limited time offer.**

These offers cannot be combined with any  
other promotion / offer. One per new customer.



847-806-0003 sales@PCBnet.com  
Certified Woman-Owned Small Business



# OUR SERVICES AND CAPABILITIES

| Process                     |                  | Technology Road Map                                                                             |                                                                                                 |                                                                                                                     |                                                                                                                     |                                                                                                                     |
|-----------------------------|------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
|                             |                  | 2011                                                                                            | 2012                                                                                            | 2013                                                                                                                | 2014                                                                                                                | 2015                                                                                                                |
| Material                    |                  | FR 4<br>Rogers<br>ISOLA<br>Polyimide-Flex                                                       | FR 4<br>Rogers<br>ISOLA<br>Polyimide-Flex<br>Metal Core                                         | FR 4<br>Rogers<br>ISOLA<br>Polyimide-Flex<br>Metal Core                                                             | FR 4<br>Rogers<br>ISOLA<br>Polyimide-Flex<br>Metal Core                                                             | FR 4<br>Rogers<br>ISOLA<br>Polyimide-Flex<br>Metal Core                                                             |
| Min. Dielectric Thickness   |                  | 2 mil                                                                                           | 2 mil                                                                                           | 2 mil                                                                                                               | 2 mil                                                                                                               | 2 mil                                                                                                               |
| Max. Layer Count            |                  | 42                                                                                              | 42                                                                                              | 42                                                                                                                  | 42                                                                                                                  | 50                                                                                                                  |
| Max. Working Panel Size     |                  | 21"x31"                                                                                         | 21"x31"                                                                                         | 21"x31"                                                                                                             | 21"x31"                                                                                                             | 21"x31"                                                                                                             |
| Max. Board Thickness        |                  | .250"                                                                                           | .280"                                                                                           | .280"                                                                                                               | .280"                                                                                                               | .300"                                                                                                               |
| Min. Board Thickness        |                  | .016"(6L)                                                                                       | .016"(6L)                                                                                       | .016"(6L)                                                                                                           | .016"(6L)                                                                                                           | .016"(6L)                                                                                                           |
| Min. Line/Space             | I/L              | 3/2.5 Mil                                                                                       | 2.5 /2.5 Mil                                                                                    | 2/2 Mil                                                                                                             | 2/1.5 Mil                                                                                                           | 2/1.5 Mil (HDI)                                                                                                     |
|                             | O/L              | 3/2.5 Mil                                                                                       | 2.5 /2.5 Mil                                                                                    | 2/2.5 Mil                                                                                                           | 2/2Mil                                                                                                              | 2/2 Mil (HDI)                                                                                                       |
| Warp                        |                  | .001"/in.                                                                                       | .001"/in.                                                                                       | .001"/in.                                                                                                           | .001"/in.                                                                                                           | .001"/in.                                                                                                           |
| BGA Pitch                   |                  | 0.35mm                                                                                          | 0.30mm                                                                                          | 0.25mm                                                                                                              | 0.2mm                                                                                                               | 0.2mm                                                                                                               |
| Layer to Layer Registration |                  | 4 mil                                                                                           | 3 mil                                                                                           | 3 mil                                                                                                               | 3 mil                                                                                                               | 3 mil (HDI)                                                                                                         |
| Finish Hole Size (min.)     | Mechanical Drill | .004"                                                                                           | .004"                                                                                           | .004"                                                                                                               | .004"                                                                                                               | .004" (HDI)                                                                                                         |
|                             | Laser Drill      | .004"                                                                                           | .003"                                                                                           | .003"                                                                                                               | .0025"                                                                                                              | .0025" (HDI)                                                                                                        |
| True Hole Position          |                  | +/- .002"                                                                                       | +/- .002"                                                                                       | +/- .002"                                                                                                           | +/- .0015"                                                                                                          | +/- .0015"                                                                                                          |
| Finish Hole Size Tolerance  | PTH              | +/- .002"                                                                                       | +/- .002"                                                                                       | +/- .002"                                                                                                           | +/- .0015"                                                                                                          | +/- .0015"                                                                                                          |
|                             | Non-PTH          | +/- .001"                                                                                       | +/- .001"                                                                                       | +/- .001"                                                                                                           | +/- .001"                                                                                                           | +/- .001"                                                                                                           |
| Aspect Ratio                | (Board Tks /FHS) | 20                                                                                              | 20                                                                                              | 30                                                                                                                  | 30                                                                                                                  | 30                                                                                                                  |
| Heavy Copper                | Inner Layer      | 6 OZ                                                                                            | 6 OZ                                                                                            | 10 OZ                                                                                                               | 10 OZ                                                                                                               | 10 OZ                                                                                                               |
|                             | Outer Layer      | 10 OZ                                                                                           | 12 OZ                                                                                           | 16 OZ                                                                                                               | 16 OZ                                                                                                               | 16 OZ                                                                                                               |
| Buried/Blind Via            |                  | 4+N+4                                                                                           | 9+N+9                                                                                           | 9+N+9                                                                                                               | 9+N+9                                                                                                               | 10+N+10 (HDI)                                                                                                       |
| Plasma desmear              |                  | Yes                                                                                             | Yes                                                                                             | Yes                                                                                                                 | Yes                                                                                                                 | Yes                                                                                                                 |
| Outline Tolerance           |                  | +/- .004"                                                                                       | +/- .004"                                                                                       | +/- .004"                                                                                                           | +/- .004"                                                                                                           | +/- .004"                                                                                                           |
| Surface Finish              |                  | HASL<br>ENIG<br>Immersion Silver<br>OSP (ENTEK)<br>Carbon<br>Immersion Tin<br>Electrolytic Gold | HASL<br>ENIG<br>Immersion Silver<br>OSP (ENTEK)<br>Carbon<br>Immersion Tin<br>Electrolytic Gold | HASL<br>ENIG<br>Immersion Silver<br>OSP (ENTEK)<br>Carbon<br>Immersion Tin<br>Electrolytic Gold<br>ENEPIG<br>ENIPIG | HASL<br>ENIG<br>Immersion Silver<br>OSP (ENTEK)<br>Carbon<br>Immersion Tin<br>Electrolytic Gold<br>ENEPIG<br>ENIPIG | HASL<br>ENIG<br>Immersion Silver<br>OSP (ENTEK)<br>Carbon<br>Immersion Tin<br>Electrolytic Gold<br>ENEPIG<br>ENIPIG |
| Impedance control           |                  | +/-5%                                                                                           | +/-5%                                                                                           | +/-5%                                                                                                               | +/-5%                                                                                                               | +/-5%                                                                                                               |
| RoHS Compliant              |                  | Yes                                                                                             | Yes                                                                                             | Yes                                                                                                                 | Yes                                                                                                                 | Yes                                                                                                                 |

## PCBA CAPABILITIES

- 24 Hr. Turnaround Service
- Passives down to 01005
- BGA and MBGA
- Leaded or PB-Free dedicated lines
- Stencil-less Assembly-Jet Printing
- SMT and Thru-Hole Capabilities
- All SMT Machine placed
- Full Turnkey

JUST UPLOAD YOUR BILL OF MATERIAL  
AND YOU WILL RECEIVE  
A FULL TURNKEY QUOTE IN MINUTES



www.PCBnet.com

**imagineering inc.**

sales@PCBnet.com (847) 806-0003

## EQUIPMENT LIST

- My500 Jet printer •
- Eliminates use of stencils
- My100 Pick and Place Machine •
- Hydra-Head Technology
- Passive value checks before part placement •
- Cut tape and loose parts •
- can be machine placed
- Vitronics 8-Zone Reflow oven •

Certified Woman-Owned Small Business