



omni graphics ltd.

April 30, 2009

Omni Graphics Quality System was registered to **ISO 9002** in July 1994 for the sale, quick-turn production and delivery of printed circuit boards to customer specifications for a wide variety of commercial applications. We currently maintain our quality system to the **ISO 9001:2000** standard.

OMNI GRAPHICS CAPABILITIES

Photoplotting/ Artwork

- * In House Photoplotting,
- * Gerber Editing
- * Pcb layout & design from schematic, netlist, artwork
- * Conversions from Non CAD to Digitized Data
- * Scanning artwork to Gerber and NC Drill files is available

Printed Circuit Board Manufacturing

RoHS Compliant Boards by Request

- * 1 to 12 layers

Maximum Board Sizes

- * 1-2 layer - 12" x 17"
- * 4-12 layer - 12" x 16"

Material Dimensions

- * Standard board thickness for 1-12 layers is 0.062"
- * Other standard thicknesses : *0.032" * 0.093" * 0.125"
- * Dielectric thickness in stock .004" and .007"
- * Core thickness from .005" and up

- | | | | |
|---|------------------------------------|---|---------------------------------|
| ! | 3 and 5 day standard turns | ! | Immersion White Tin, Enig, Hasl |
| ! | 24 hour turnaround on request | ! | Board thickness up to .125 |
| ! | Sequential lamination construction | ! | .005 core processing |
| ! | Blind and buried vias | ! | IPC 6012 Class 1 through 3 |
| ! | 170 Tg laminate for RoHS | ! | ISO9001:2000 |

Board Types/Finishes

Solder Mask On Bare Copper (SMOBC with HASL finish) - the copper is not covered by solder except on solder points (ie pads). Alternatively the solder points can be covered with:

Organic White Tin

Organic Nano finish

Imersion Silver

Enig (electroless nickel immersion gold).

The advantage of these finishes over Hasl is perfectly flat pads and they are ROHS compliant. White tin, silver, and nano are lower cost than gold. These boards have solder masks, they might have a silkscreen.

Solder Masks

The standard mask for SMOBC boards is a Liquid PhotoImageable Mask that is referred to as LPISM or LPI. It is available in green, red, white, and blue but other colours are possible.

Silkscreens (Component Ident Layers)

Common colours are white and yellow. Black is sometimes used on single sided boards.

Quality Standards

Omni works to industry standards as defined by IPC 6012.

The company's quality system is compliant with the ISO 9001-2000 standards.

Omni uses only UL approved materials (laminates, solder mask etc.) to build boards.

Routing out Panels/Boards

All pricing includes cutting boards out of the production panel. Boards can be left in panels if requested. This is known as tab routing (little tabs hold the boards in place).

V scoring is very economical but requires straight edged boards (ie rectangles, squares).

V scoring is cutting a slot partly through the laminate so that the boards can be snapped off after assembly.

Routing Slots

! For 0.032" laminate smallest rout is 0.030"

! For 0.062" laminate smallest rout is 0.040"

Hole Sizes

! Standard via size - 0.016"

! Smallest plated hole size - 0.010" (in 0.032 material) - 0.012" (in 0.062 material)

Costing for drilling depends on the size of the hole to be drilled. Holes less than .016" require that the drills to be slowed down and the number of panels drilled at one time be reduced resulting in a small hole surcharge being added to a quotation or order verification.

Gold Plating

Edge connectors are gold plated over nickel.

Out-sourced boards can be gold flash plated in lieu of Immersion Tin or Hot Air Solder Levelling (HASL)

Electrical Testing

Netlist testing for bare boards is available.

All out-sourced orders are electrically tested.

Deliveries

In House Production Turnarounds *

# Layers	Sq inches / Order	Standard Delivery	Fastest Delivery
1 & 2	up to 900 (prototyping)	3 days	1 day
	up to 2000	5 days	3 days
	up to 4000	10 days	5 days
4 to 8	up to 900 (prototyping)	5 days	2 days
	up to 2000	10 days	3 days
	over 4000	15+days	5 days

All days are standard working days, ie Monday thru Friday

Week end work may be available if required

* Keep in mind that turnarounds depend on currently available capacities. It is always advisable to check on the availability of a specific turnaround.

Offshore production

! standard delivery is 3 to 4 weeks

! faster deliveries can be arranged

