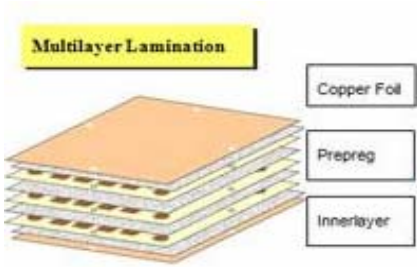


# MATRIX

## Material preparation, cut to production panel size



## Multilayer Lamination



AOI

Innerlayer Automatic Optical Inspection



Press



# MATRIX

**DRILLING**

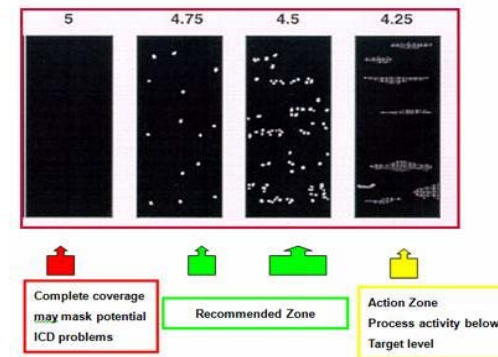
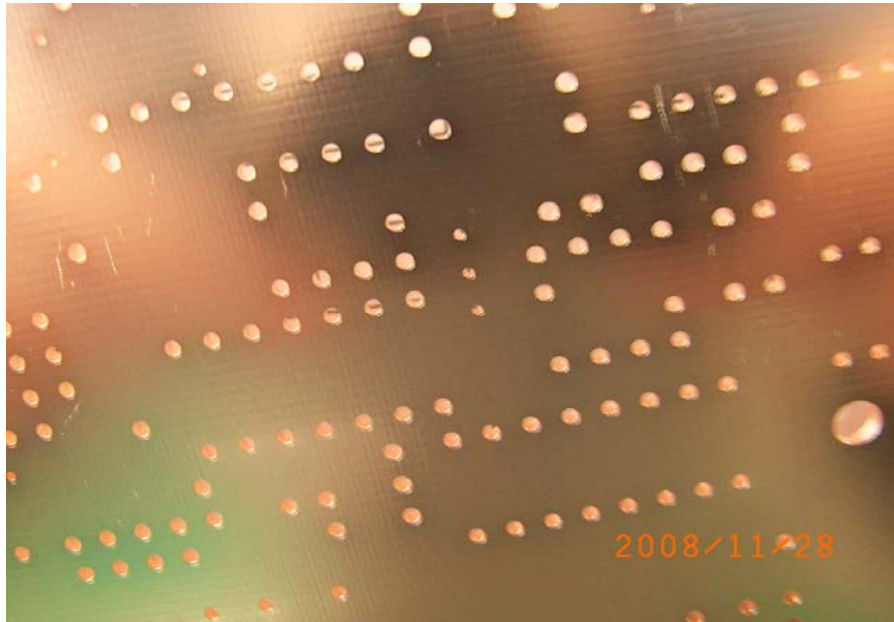


Drilling Machine



# MATRIX

**PTH + PANEL PLATING**

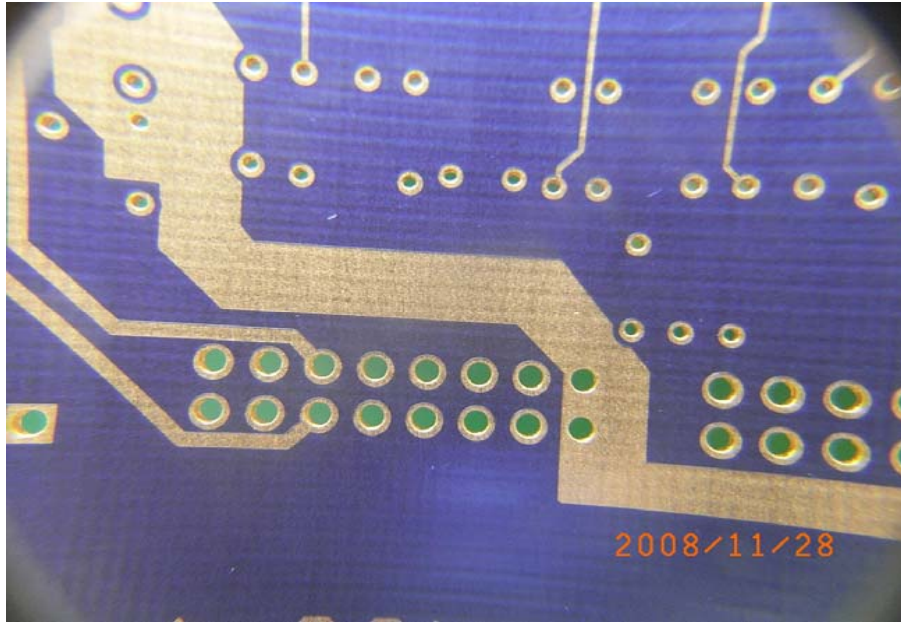


**Black light test to control the PTH quality**

**REMARK : All drilled holes are plated with copper. Connection is made between top side and bottom side.**

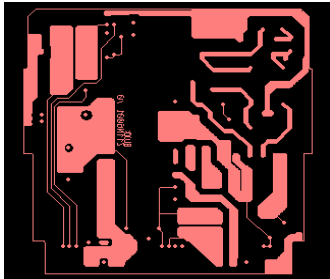
# MATRIX

**DRY FILM Lamination and developing**



DRY FILM (BLUE) = FOTO SENSITIVE FILM

REMARK  
Add image/layout on both side of the board



Surface treatment



DRY FILM Lamination



Exposure



Developing



# MATRIX

## PATTERN PLATING



Pattern Plating with TIN

### REMARK

TIN (etch resistant) is plated to protect the image/lay out against etching of the copper

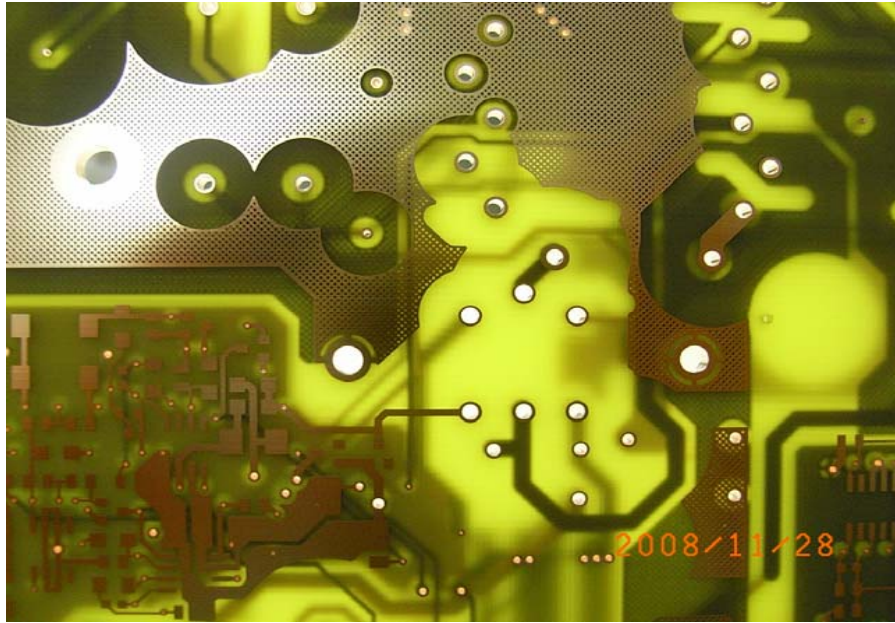


Chemical Laboratory to check the chemicals in all plating lines.



# MATRIX

S.E.S Etching process



Stripping of DRY FILM  
Etching of copper  
Stripping of TIN

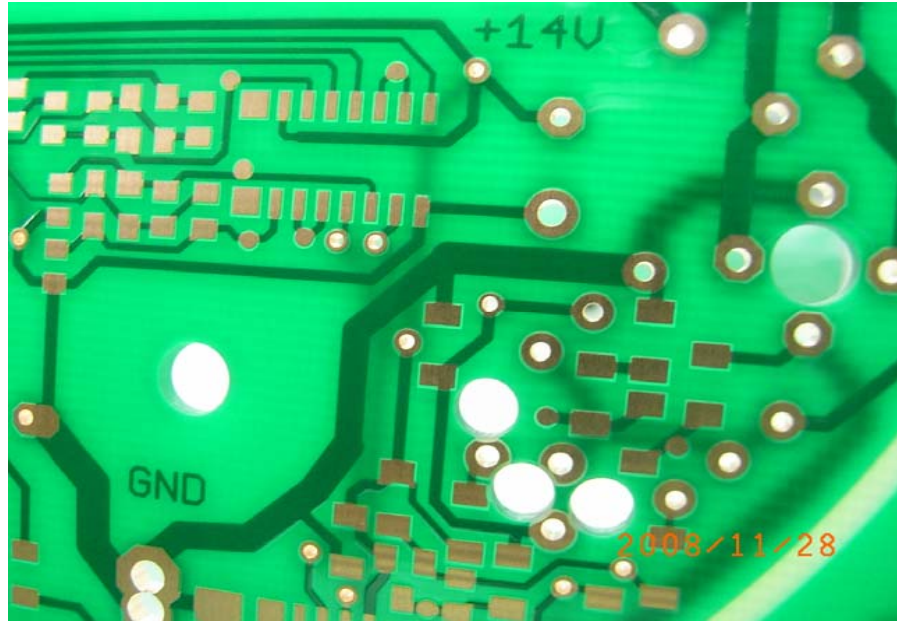
**REMARK**  
DRY FILM (BLUE) is removed and the copper beneath the DRY FILM is etched away.



100% E-test  
Before soldermask



Soldermask process



REMARK

Soldermask is added on top the bare copper image/lay out.



Copper hole wall thickness measurement



Surface pre treatment



Soldermask Silkscreen



Tunnel Oven  
Pre cure



Soldermask Exposure



Developing and rinsing  
of soldermask

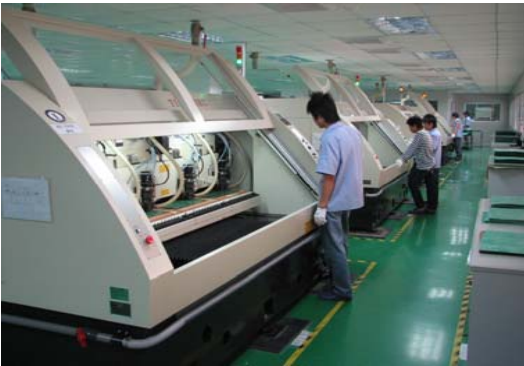


# MATRIX



Measurement Outline by Optical 2D Measurement Machine

Routing



Physical Laboratory  
Cross sectioning preparation  
to check hole wall thickness and quality

100% E-Test

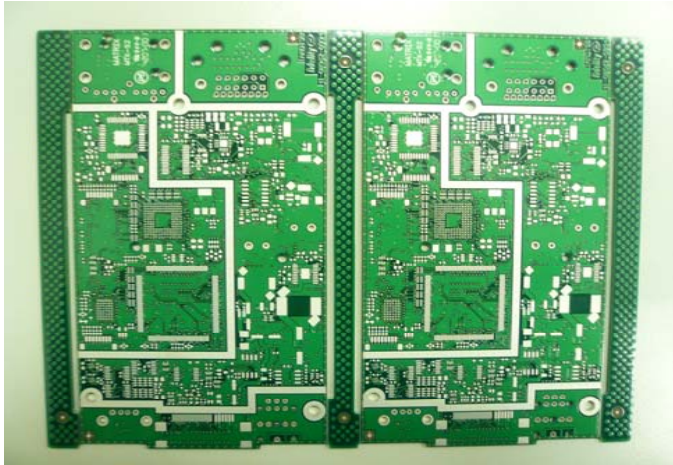


100% Final  
Visual Inspection





# MATRIX



Surface finishing  
Immersion Tin



Vacuum Packing



Measurement of surface finishing thickness



Finished Goods

