

**NOVEL VERTICAL CUP PLATING**  
FAN-OUT PANEL LEVEL PACKAGING FOR RDL METALLIZATION



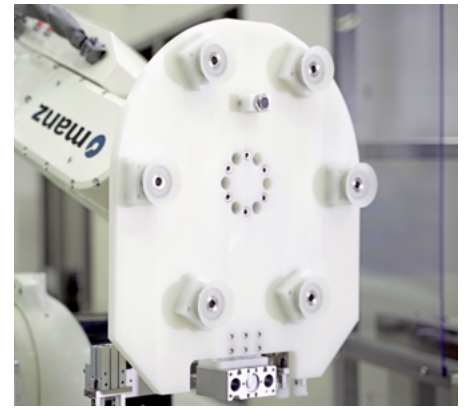
# Novel Vertical Cup Plating

**Fan-Out Panel Level Packaging for RDL Metallization**





Plating Line Integrated with Automation System



Self-Designed Gripper

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## TECHNICAL SPECIFICATIONS

### NOVEL VERTICAL CUP COPPER PLATING

|                                      |                                   |
|--------------------------------------|-----------------------------------|
| Dimensions (L × W × H)               | Customizable                      |
| Panel Size (mm)                      | 510 × 515 up to 720 × 650         |
| Anode                                | Insoluble/Single or Multiple Zone |
| Convection/Agitation                 | Fan Type or Eductor Type          |
| Membrane                             | Ionic Exchange Membrane           |
| Warpage allowance                    | 5~10 mm                           |
| Cathode Contact Failure Detection    | Yes                               |
| Blanket UN%                          | <10%                              |
| Through Hole/Via, Filling Capability | Down to 25um                      |
| Pattern UN%                          | <15%                              |

### DESCRIPTION

|  |
|--|
| Process flow: Loading→Micro Etch→Acid Rinse→Cu Plating→Water Rinse<br>→Dry→Unloading |
| Type of carrier substrate: Stainless, Epoxy, Glass & CCL(FR-4)                       |
| Fully integrated with automation system  |
| Modular design   |
| Jig free   |

Specific performance parameters depend on the application.

### FEATURES

*Unique jig free design reduces the chemical consumption & saves the maintenance cost.*

*No void defect for through hole or via.*

*Excellent plating uniformity <10% for larger panels and small via (<25µm) filling capabilities.*

*Highly integrated with automation system including loading/unloading.*

*Integrated with upstream & downstream processes including pre-treatment, plating & post-cleaning.*

*Modular design optimizes the production and maintenance efficiency.*

### Manz Taiwan Ltd.

No. 3, Tzu Chiang 3rd Road, Zhongli Dist. Taoyuan City • 32063 • Taiwan  
Phone +886 3 452 9811 • Fax +886 3 452 9810 • info@manz.com.tw

[www.manz.com.tw](http://www.manz.com.tw)