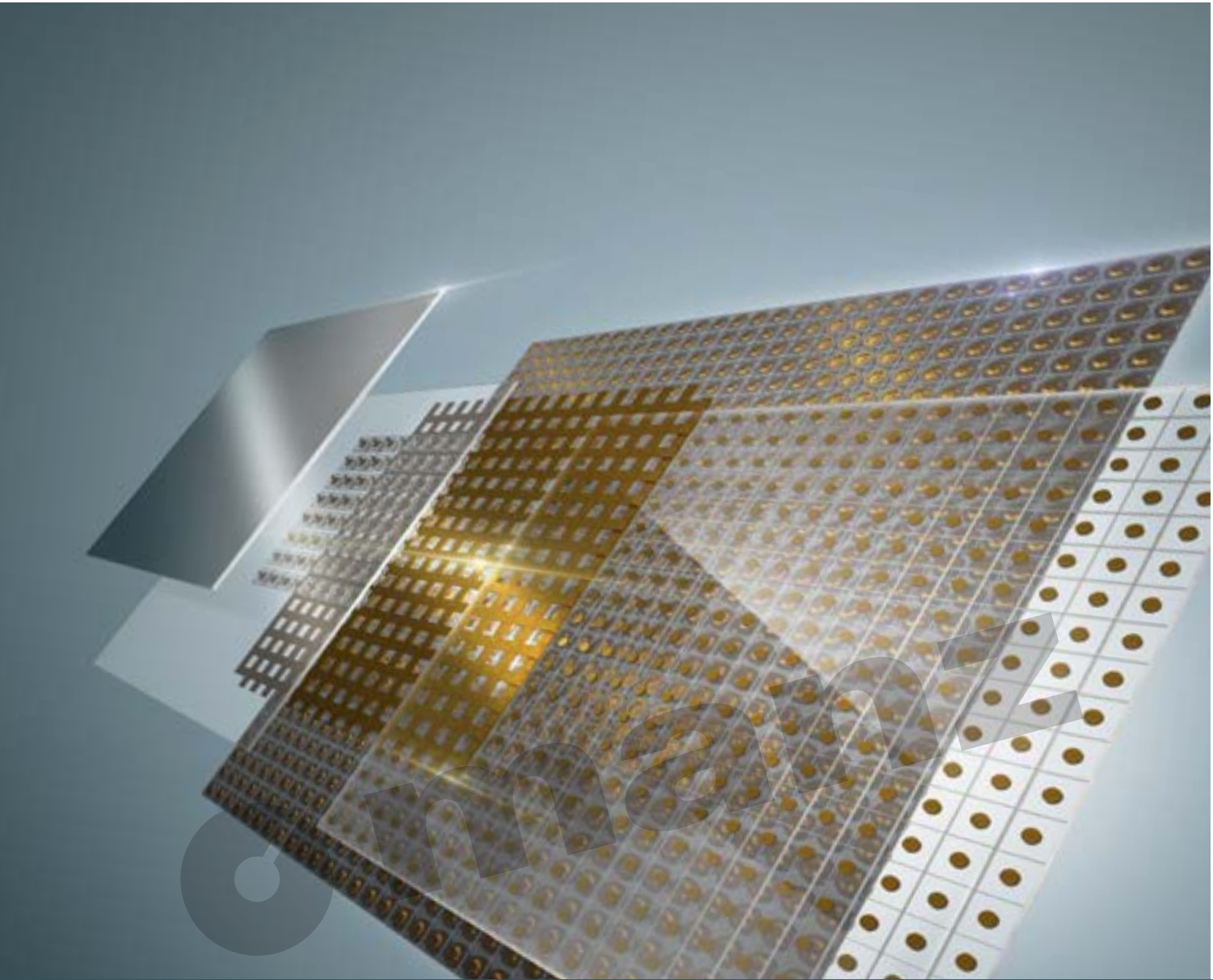


ENGINEERING
TOMORROW'S
PRODUCTION



TGV Process

Through Glass Via Plating & Etching Equipment
for Semiconductor Panel Level Packaging

Technical Specifications

Plating Equipment

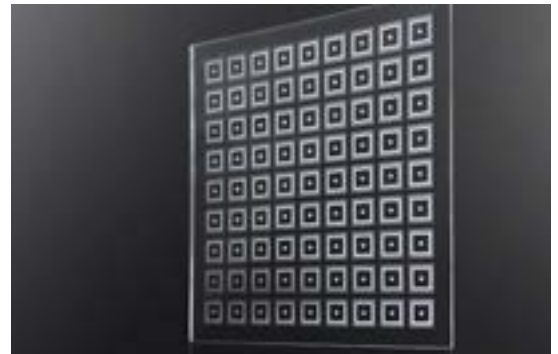
Panel Size (mm)	300mm x 300mm; 510mm x 515mm
Via Diameter	20~200um
Glass Thickness	0.2mm - 1.1mm
Blanket Uniformity	> 95 %
Via Shape	X-shape / Straight
Plating Type	Comformal / Via Filling Plating
Performance	No voids

Etching Equipment

Panel Size (mm)	300mm x 300mm; 510mm x 515mm
Via Diameter	20~200um
Glass Thickness	0.2mm - 1.1mm
Via Size Uniformity	≥ 95%
Via Shape	X-shape / Straight
Throughput	2,000 panel/month (Base on customer request)

Description

Process flow	TGV Total Solutions with Automation Integration: Laser→ Wet Etching* →AOI→ →Sputtering→ Electroplating* →TGV RDL Process
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→ Features

- **Inline Process Monitoring**
Real-time via size control ensures precise etching process time and stable production quality.
- **Reliable Performance**
Excellent via size uniformity with X-shaped and straight vias, meeting high aspect ratio demands across diverse glass materials.
- **Productivity Boost**
Proven expertise in TGV via formation and double-sided metallization processes to maximize throughput.
- **Decades of Expertise**
Leveraging 40 years of RDL equipment development from IC substrates & display to TGV RDL solutions.

* Manz's equipment performance parameters vary by application.

