Next Generation of Pattern Viafill Plating Technology

新一代图形填盲孔电镀铜技术

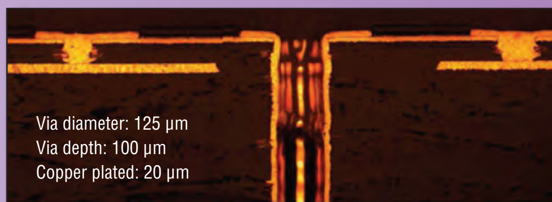
MICROFILL™ EVF and EVF-S Copper Via Fill

The latest generation technology developed by Dow Electronic Materials for advanced viafill plating, MICROFILL™ EVF/EVF-S Copper Via Fill provides enhanced via filling, with simultaneous through-hole plating, at surface thicknesses unattainable. Formulated to operate in existing equipment over a broad range of operating conditions, MICROFILL™ EVF/EVF-S Copper Via Fill is suitable for both HDI and IC Substrate applications. It is proved by sufficient experience that MICROFILL™ EVF/EVF-S Copper Via Fill could help to reduce 20% plating thickness and helps to improve varied plating defects.

MICROFILL™ EVF/EVF-S 盲孔电镀，陶氏电子材料（原罗门哈斯电子材料）所发展最新一代高阶填盲孔电镀技术，具备卓越的填孔表现，并同时兼顾通孔贯孔以及盲孔填孔。此系统可应用于现有的设备上并具备广泛的操作范围。MICROFILL™ EVF/EVF-S可应用于HDI 与 IC SUBSTRATE 电镀。根据足够的经验显示，MICROFILL™ EVF/EVF-S，得以有效的降低20%的电镀厚度并改善多种电镀缺陷。

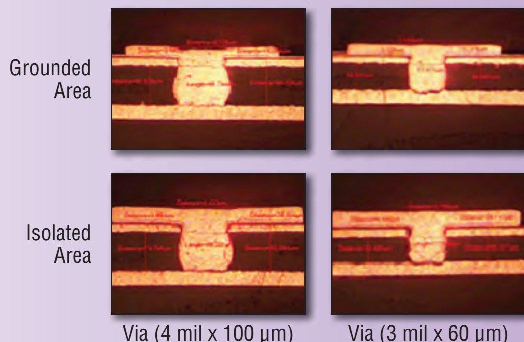
Features and Benefits 特性及优点

- Low plating thickness (20 µm)
  较薄的电镀厚度 (20 µm)
- Exceptional microvia filling performances
  优越的盲孔电镀填孔表现
- Simultaneous microvia filling and through-hole plating at HDI application
  于HDI制程中，可同时兼顾填孔表现及通孔贯孔能力
- Rectangle trace profile for W/B application
  线路形状方正，可搭配使用于打线制程
- Excellent reliability
  优良可靠性
- Easily analyzed and controlled by conventional CVS
  容易控制，可用CVS测量
- Compatibility with both panel and pattern plating processing
  可适用于全板或图形电镀流程



Through hole throwing power >80% (for 5:1 AR through hole at 1.8 ASD and 20 µm copper thickness

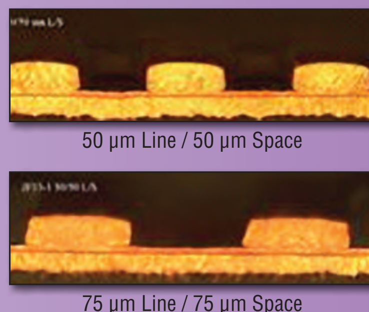
Pattern Filling Performances



Via (4 mil x 100 µm) Via (3 mil x 60 µm)

Current Density: 18 ASF
Flow Rate: 0.6 bar
Copper Plated: 20 µm
Plating Distribution: ±4 µm
Via diameter: 125 µm
Via depth: 100 µm
Dimple: <10 µm

Trace Profile



50 µm Line / 50 µm Space

75 µm Line / 75 µm Space

Electronic Materials

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