

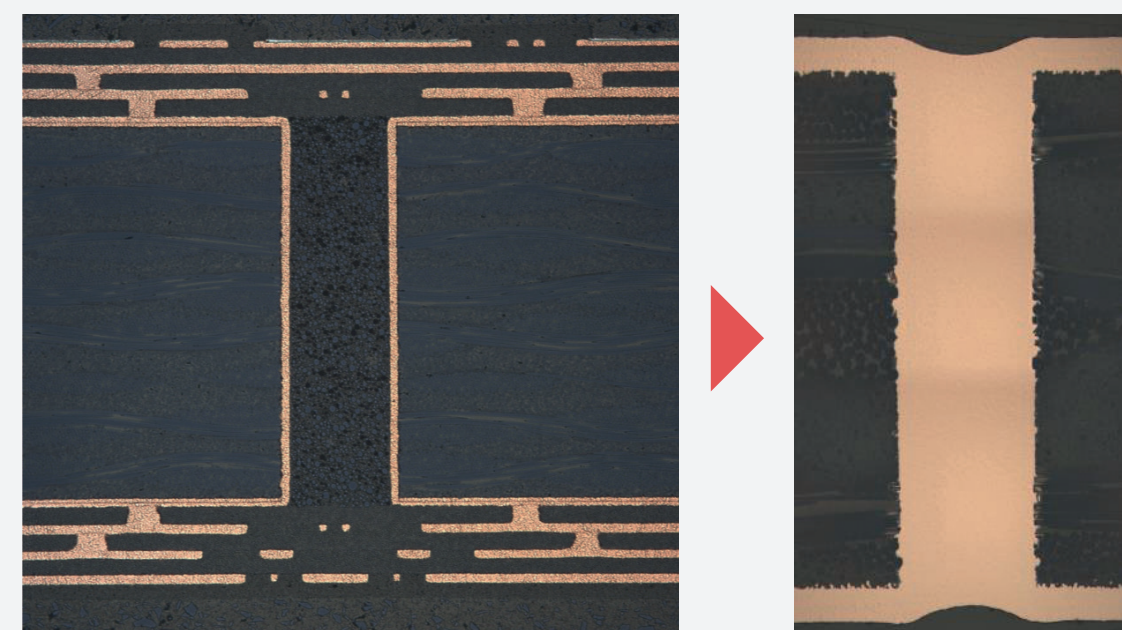
Through via filling
for IC/CSP substrate



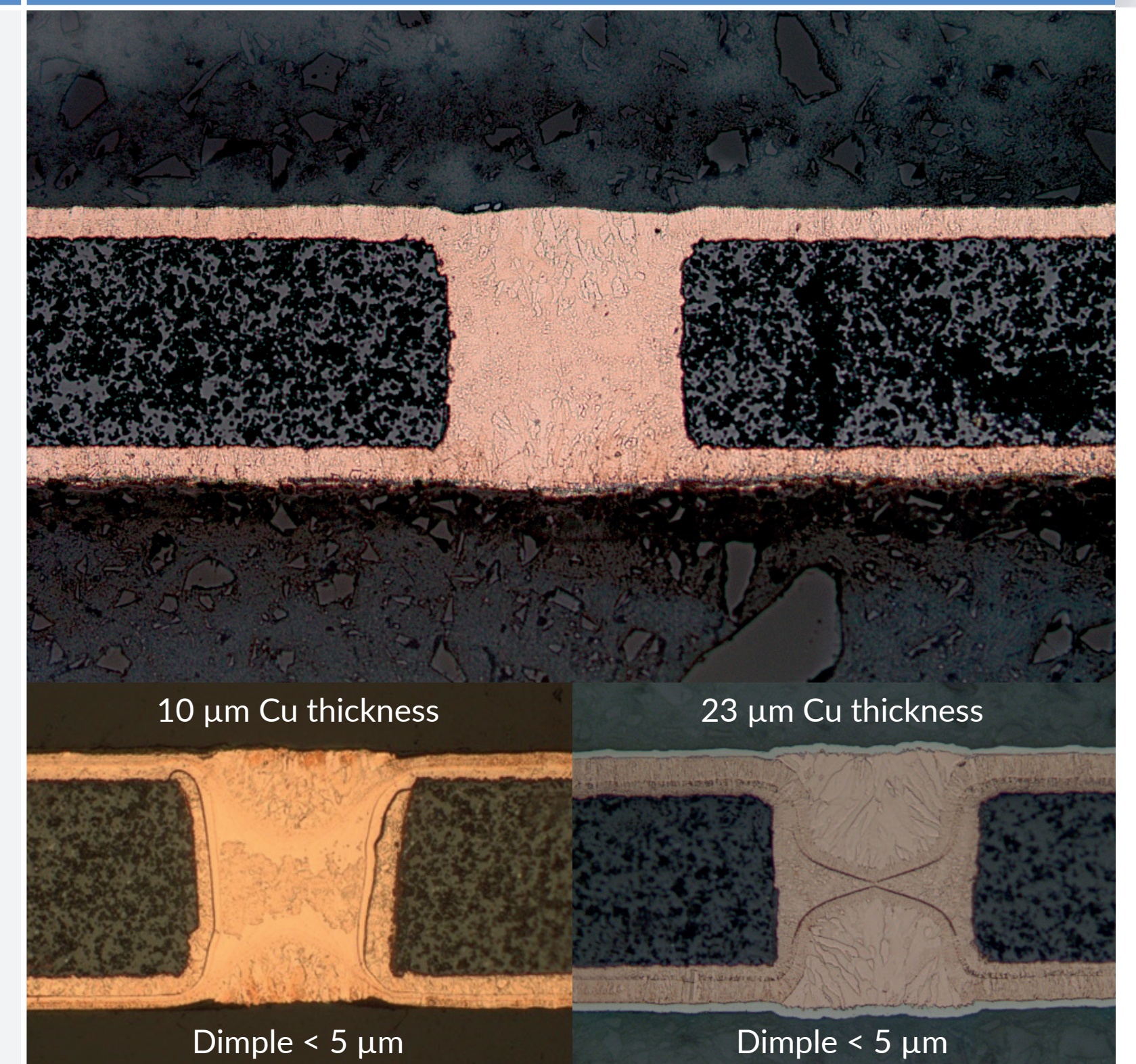
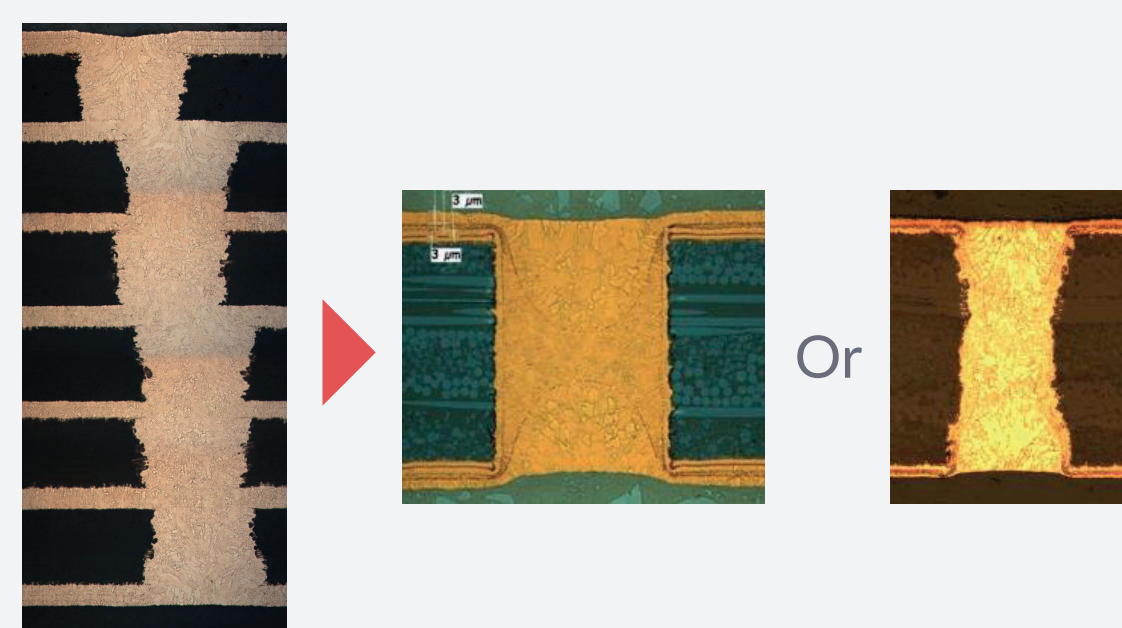
Further possible applications
for Inpulse® 2THF2

THF: Only 10 µm copper on surface
including copper foil

Replacement of plugging process



Replacement of stacking process



Dramatically reduced costs
compared to conventional
plugging technology

Economic and reliable through hole filling (THF)

The Inpulse® 2THF2 electrolyte together with the unique Uniplate® InPulse 2 system is ideally suited for through hole filling especially for core material with copper foil thickness less than 5 µm. The process provides excellent surface uniformity with minimum surface plated copper. Inpulse® 2THF2 enables the option to run through hole metallization and electrolytic copper THF in one conveyerized process line.

Features and benefits

- Patented bridge plating technology enables inclusion free copper filling of through holes
- Full panel plating for best possible plated copper surface distribution
- Capable for core material of 50 µm up to 300 µm with copper foil ≤ 5 µm thickness
- Improved reliability, CTE mismatch eliminated
- Deposit plated with the Inpulse® 2THF2 system meets all current reliability standards
- Economical process savings in: copper metal, soldermask, etching process and processing time