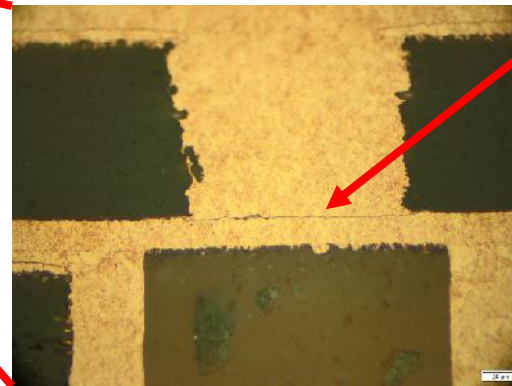
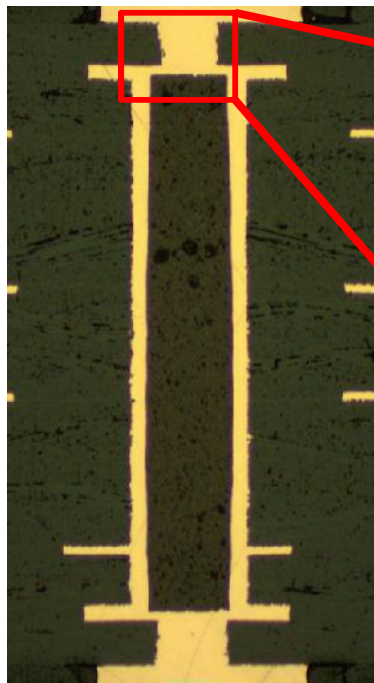


Recommendations/Comments for “IPC 2226”

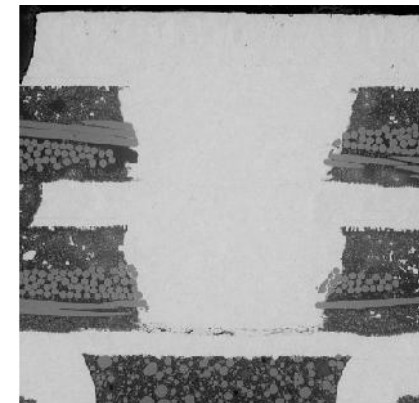
(Implementation subject to customer/supplier agreement)

Objective:

- Increase the reliability of electronic components
- Reduce the risk of copper bond failure due to thermal stress during the soldering process



Thermal stress induced separation



Source: Bill Birch,
PWB Interconnect Solutions Inc.

Recommendations/Comments for “IPC 2226” (Implementation subject to customer/supplier agreement)

Excerpt from IPC 2226:

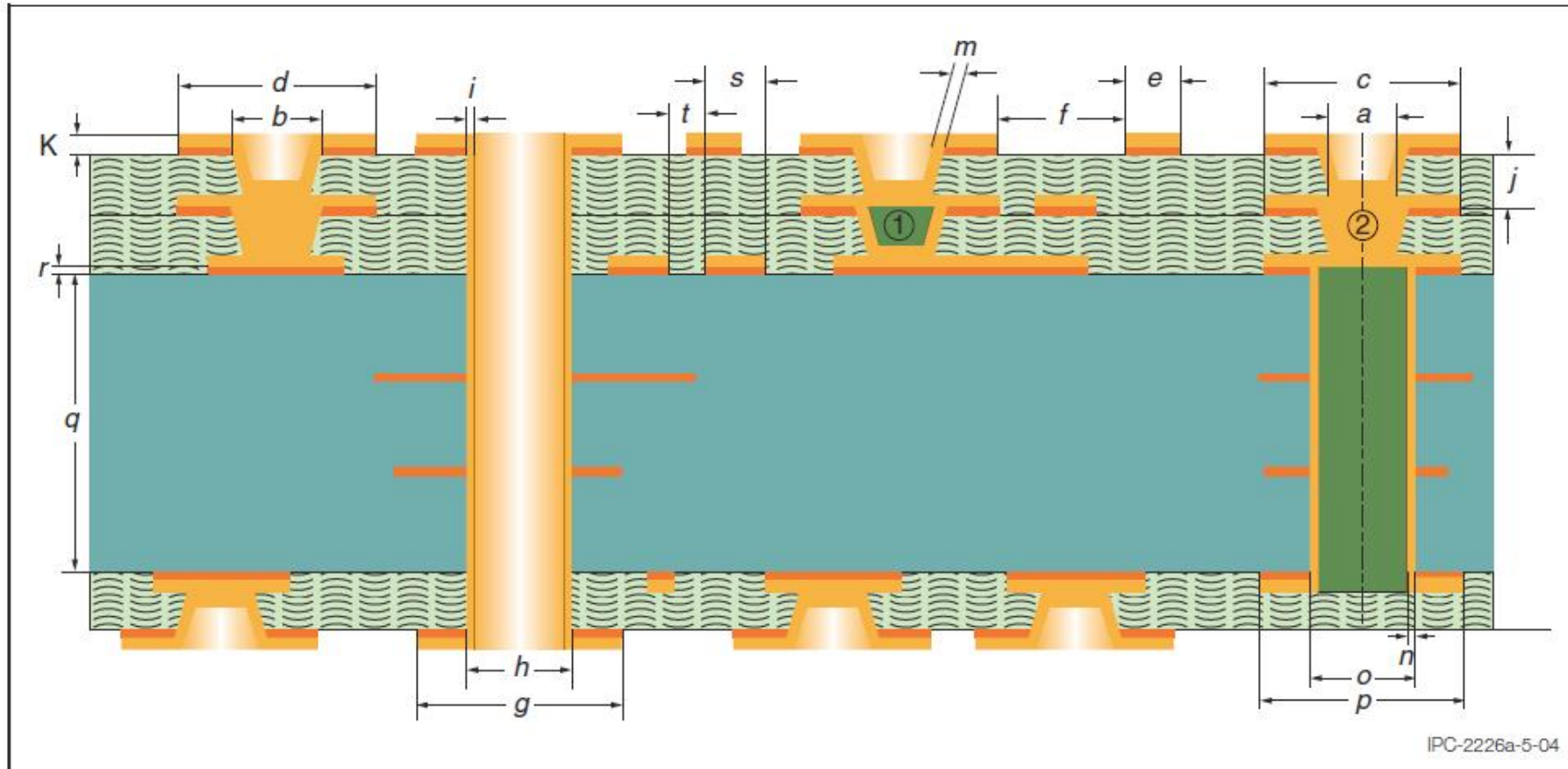


Figure 5-4 Type III HDI Construction with Stacked Microvias

(Caution: Unbalanced constructions as shown above may result in excessive bow and twist.)

Note 1: Stacking not recommended for resin or conductive/non-conductive filled microvias.

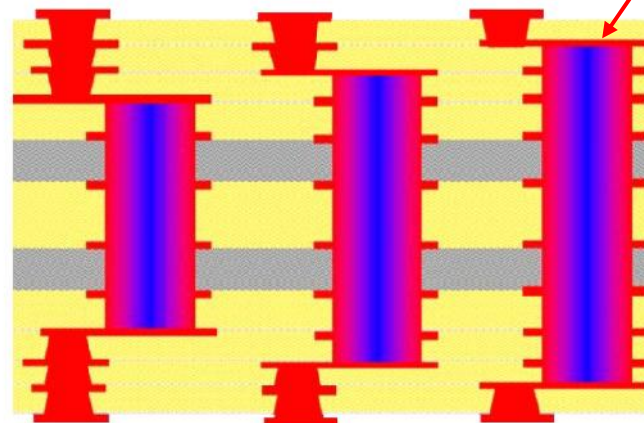
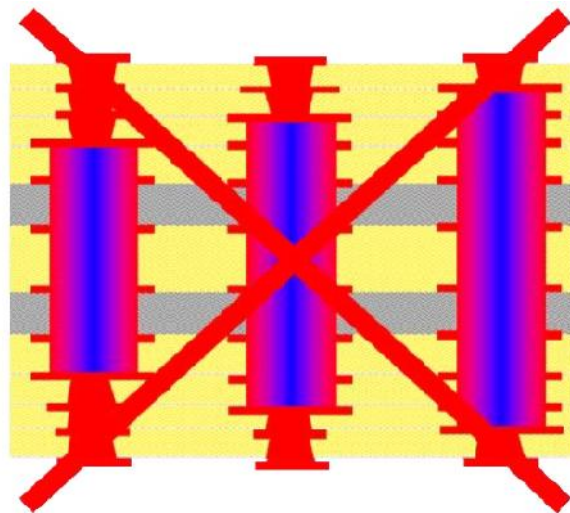
Note 2: Stacking not recommended over resin or conductive/non-conductive filled vias due to potential for reduced reliability. The use of staggered structures instead is recommended.

Caution: HDI design with microvias stacked on buried vias is not recommended.

Recommendations/Comments for “IPC 2226”

(Implementation subject to customer/supplier agreement)

Recommendations for implementing IPC 2226:
Arranging stacked and resin-filled buried vias in a staggered layout.



Comment:
The copper cap of the resin-filled vias may be dispensed with if necessary.