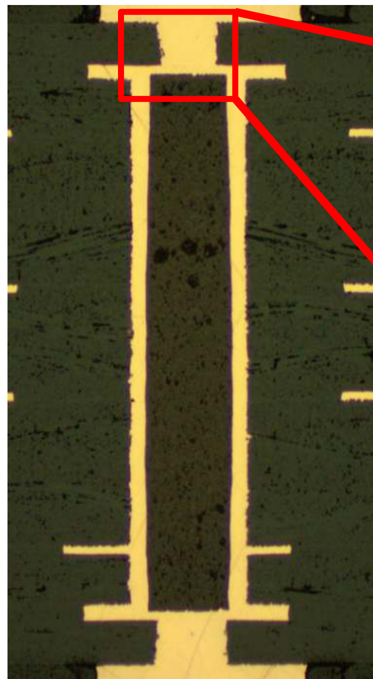
Recommendations/comments on “IPC-2226”
(Implementation subject to customer/supplier agreement)

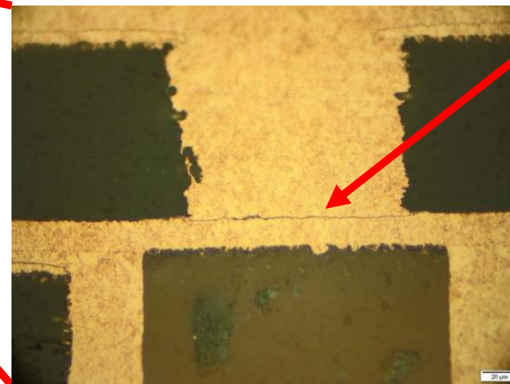
ZVEI: Die Elektroindustrie

Objective:

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

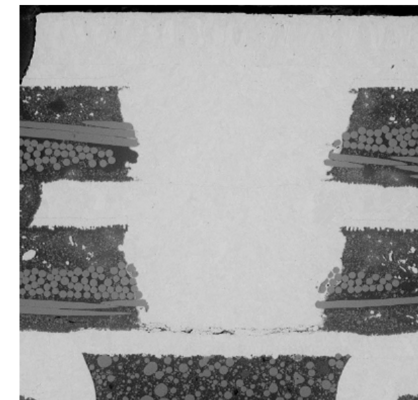


Source: PCB Quality Working Group



Source: PCB Quality Working Group

Delamination after thermal stress exposure



Source: Bill Birch,
PWB Interconnect Solutions Inc.

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(Implementation subject to customer/supplier agreement)

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Excerpt from IPC-2226:

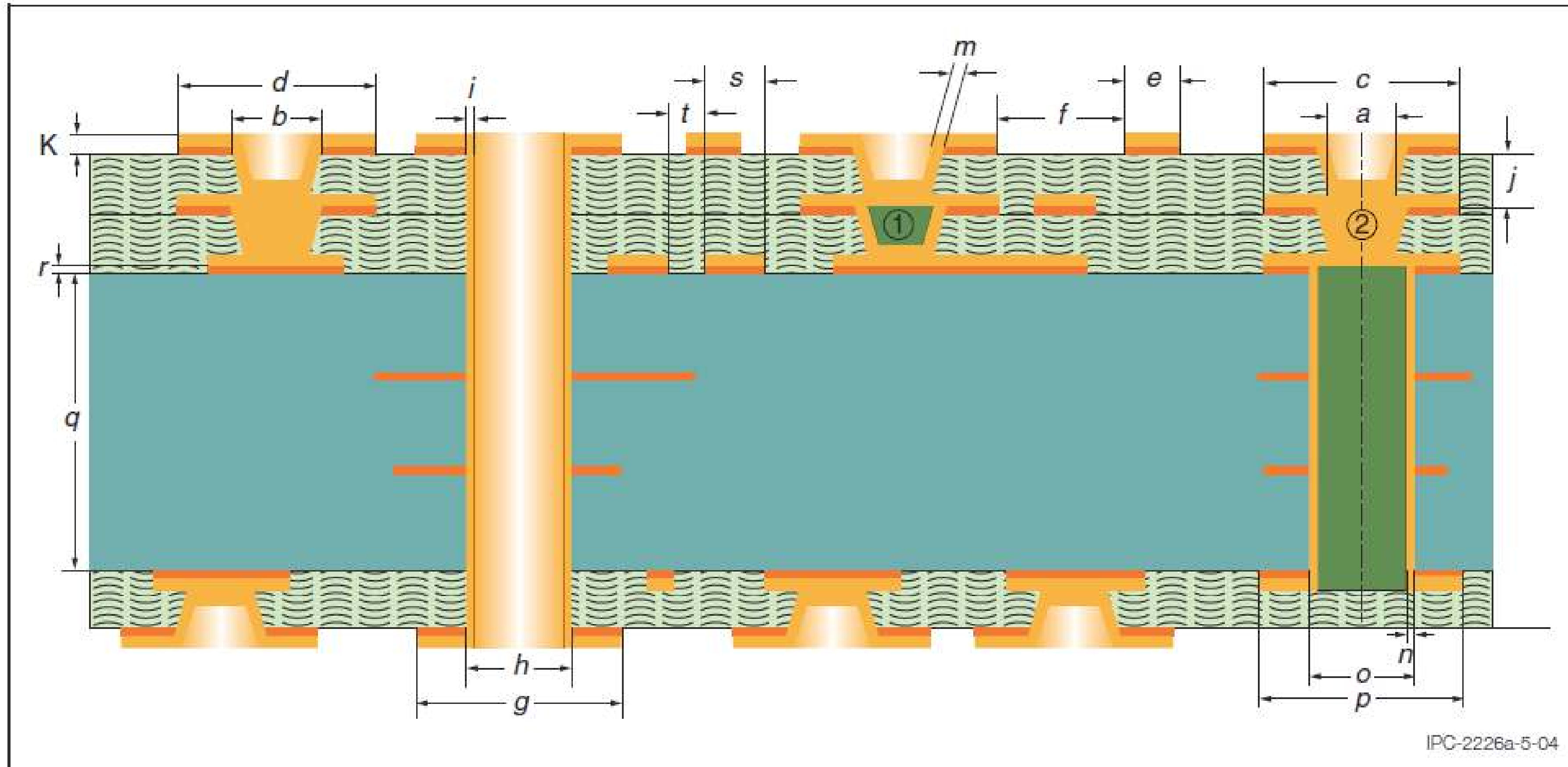
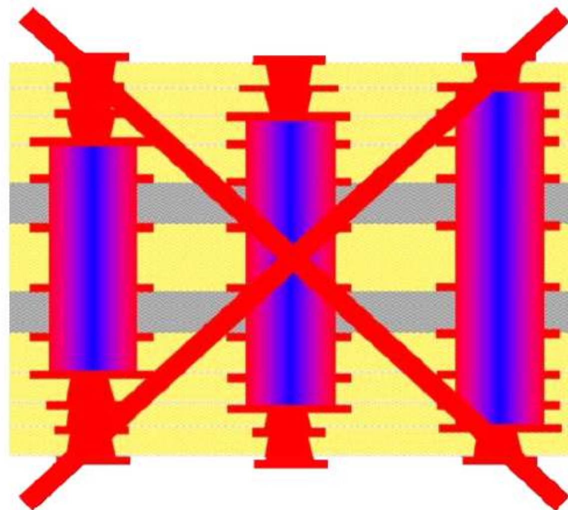
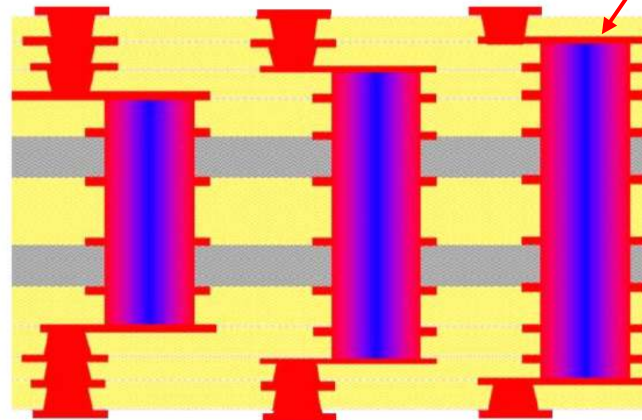


Figure 5-4 Type III HDI Construction with Stacked Microvias
(**Caution:** Unbalanced constructions as shown above may result in excessive bow and twist.)
Note 1: Stacking not recommended for resin or conductive/non-conductive filled microvias.
Note 2: Stacking not recommended over resin or conductive/non-conductive filled vias due to potential for reduced reliability. Instead, the use of staggered structures is recommended.
Caution: HDI design with microvias stacked on buried resin filled vias is not recommended.

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





Note:
The copper cap of the resin filled vias is not necessary for the implemention of this recommendation.

Source (2): PCB Quality Working Group