

FLEX SOLUTIONS AVANT-GARDE

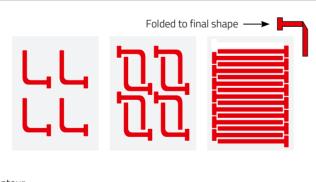
Technology variants PURE.flex SLIM.flex PURE.flex 2F SLIM.flex 4F-Ri in Anylayer microvia technology PURE.flex 2F-Ri (with stiffener) Very thin flex film polyimide Anylayer microvia flex technology Up to two copper layers Very thin Partially reinforced by "stiffener" Highly resilient, robust Photosensitive solder mask or Flexible and reliable cover foil (Polyimide Coverlay) Impedance-defined structure Delivered individually or as panel possible Optionally with solder carrier and array stiffener **Applications** Vision technologies Medical technologies Sensor technologies High-tech cable harness Number of copper layers: 1 to 2 Number of copper layers: 3 to 8

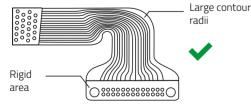


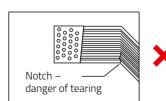
Projects with Flex solutions: Interdisciplinary collaboration during development is essential!

MECHANICS

- Always provide large contour radii (inner and outer radii) in the flex areas (design suitable for plastics)
- If necessary, provide registration holes for bonding reinforcements or heatsinks Arrange flex extensions to save space, combine several
- extensions if possible, use folding technology







Standard Stackups

PURE.flex https://www.we-online.com/ pureflex-stackups-en



SLIM**.flex** https://www.we-online.com/ slimflex-stackups-en



Combination with other technologies

It is possible to combine flex solutions with other

- technologies, for example with High Density Interconnect MICROVIA.hdi
- DEVICE.embedding
- Printed Polymer
- Heatsink

Adaptation of the individual design rules is usually necessary for this purpose.



PCB Design

Design Rules



you will find an overview of all variants of our flex solutions plus some valuable

design tips to bring your application to

success, reliably and safely.

Our Design Rules cover all the important parameters you need to make your project successful. Basically, the rules for conductor widths, distances, via and pad sizes as well as for the solder mask apply, which you can find in our BASIC Design Rules.



https://www.we-online.com/ designrulesbasic_en

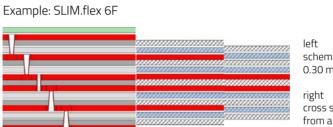
Based on this, the sectional design rules apply tor

- PURE.flex (https://www.we-online.com/designrulespureflex_en)
- SLIM.flex (https://www.we-online.com/designrulesslimflex_en)



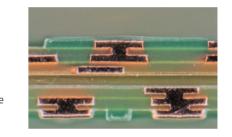
https://www.we-online.com/ designguideflex_en

SLIM.flex - Any layer microvia technology

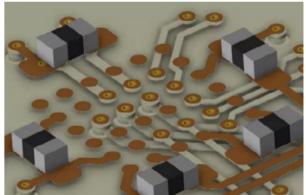


schematic stackup 0.30 mm thick









BGA pitch 0.40 mm with microvia-in-pad, flat surface

BGA pitch 0.35 mm in the EDA tool

Solder carriers for thin PCBs / substrates

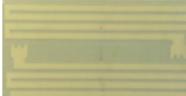
For the assembly of thin substrates with standard processes, for example in SLIM.flex and PURE.flex technology, there is a simple option with a solder carrier in various designs. The contour is laser-cut and held in place with micro bars for easy removal and separation from the solder carrier.

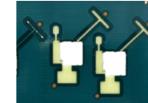


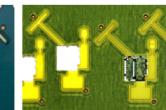
Removal and separation from the solder carrier: https://www.we-online.com/video-slimflex-en

Examples:

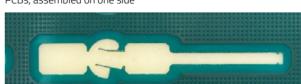








View from solder carrier side: Simple solder carrier for flexible PCBs, assembled on one side







View from PCB side: soldering carrier with PURE.flex PCB cut out

Solder carrier for PCB with ZIF contact

ORDER PHYSICAL PCB SAMPLE **FREE OF CHARGE**



SLIM.flex Physical PCB sample WE.scope

Get more information and

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