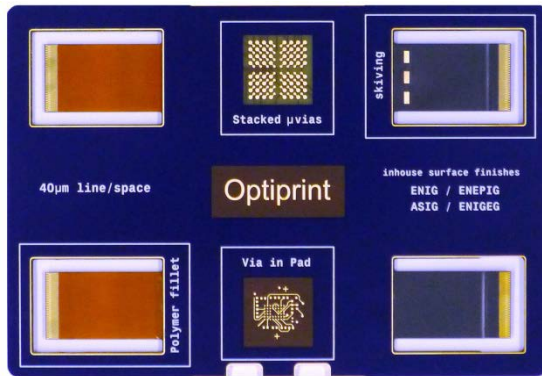


Flex-Rigid Demonstrator Board

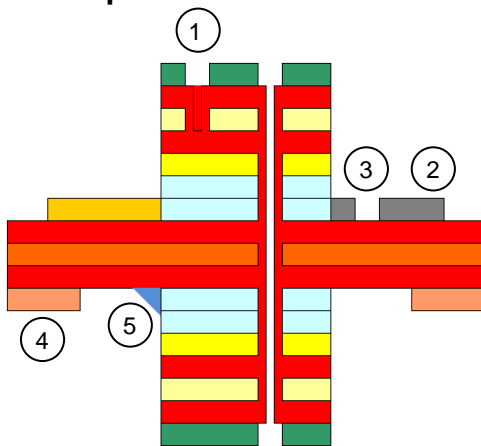
- Filled microvias
- Via in pad technology
- 40µm line/space
- Skiving (pads opened by laser)
- Edge plating



The Flex-Rigid Demonstrator Board was designed to combine different Flex-Rigid-Technologies in a single board. The idea is to show you as an engineer or designer of PCBs what can be integrated in to a single flex-rigid PCB.

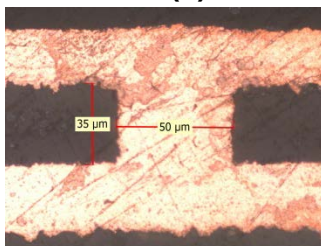
In the following the different features are described. Some of the features can be symbolised on a stackup.

Build up



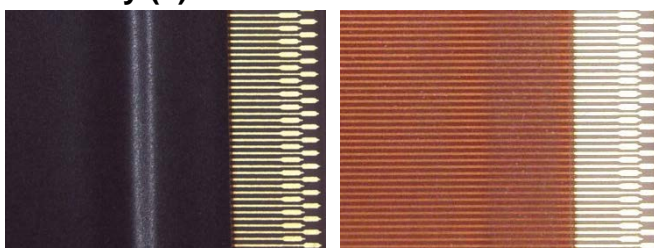
Soldermask	0.040 mm
Layer 01	0.020 mm
FR4 Prepreg	0.050 mm
Layer 02	0.035 mm
FR4 Core	0.360 mm
FR4 No-Flow-Prepreg	0.058 mm
FR4 No-Flow-Prepreg	0.058 mm
Layer 03	0.012 mm
Polyimide	0.050 mm
Layer 04	0.012 mm
FR4 No-Flow-Prepreg	0.058 mm
FR4 No-Flow-Prepreg	0.058 mm
FR4 Core	0.360 mm
Layer 05	0.035 mm
FR4 Prepreg	0.050 mm
Layer 06	0.020 mm
Soldermask	0.040 mm
total thickness	1.236 mm

Blind Vias (1)



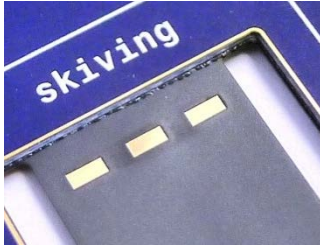
- 50µm Diameter
- Copper filled
- Possibility for stacked vias
- Via in Pad

Coverlay (2)



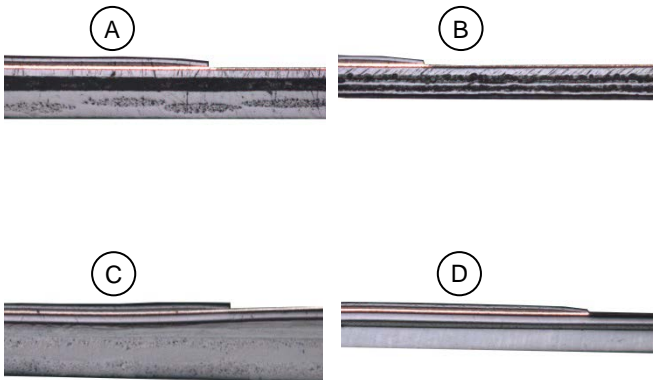
- Color options orange and black

Skiving (3)



- Coverlay openings after bonding
- Coverlay defined pads
- Accuracy $\pm 50\mu\text{m}$

Connectors (4)



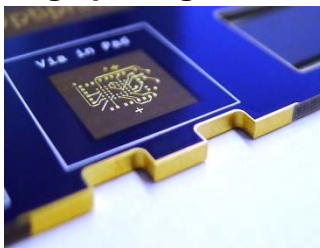
- Cold bonded
 - Adhesive and FR4 (A)
 - Polyimide tape (B)
- Hot bonded
 - Prepreg and FR4 (C)
 - Thick coverlay (D)

Polymer fillet (5)



- Strain relief at the flex to rigid transition

Edge plating



- Plated outline with various outlines