

Izdelava rigid fleksov za HGCAL

(Krambiflex)

Specifikacije:

- Geometrical specifications:
- Length: 69-75 cm
- Width < 36 mm
- Thickness < 200 um or around 200 um
- Signals on this FPC connect point to point from one end to the other end
- Stackup: 2 layers
- Top layer:
- Two power planes (analog and digital) low voltage 1.2 V and 1 A each resistance of the power planes: 2.7 mOhm/cm
- 10 x 100 Ohms Diff. pairs with a rate at 1.28 Gbps
- 5 x 50 Ohms Single lines
- High Voltage line at 1 kV DC (3-4 mA) as bias voltage
- Bottom layer:
- Two ground planes (bottom layer fully dedicated) each resistance of the ground planes: 0.7 mOhm/cm
- The FPC should be also radation hard and will operate at both room temperature and at -30 °C

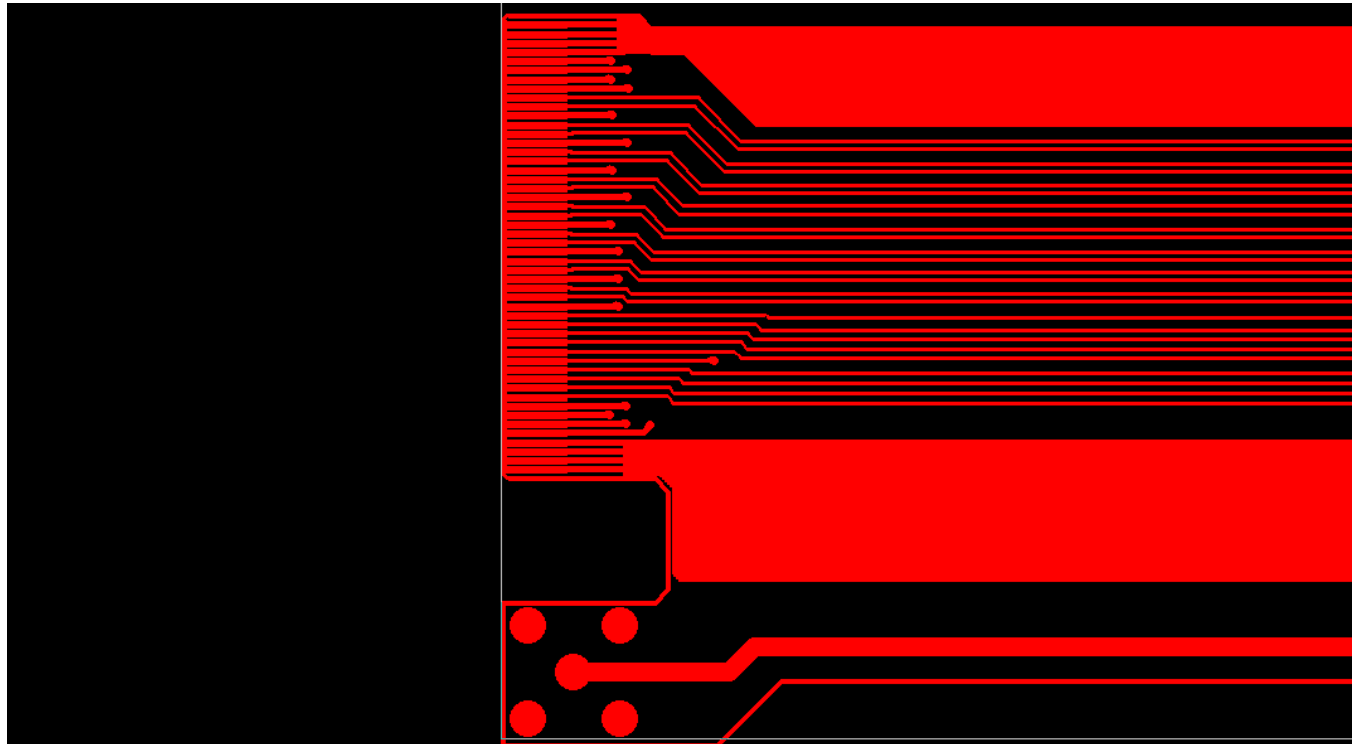
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- It is also planned to have vias on the PCB, what would be the recommended size?
- Kje a na rigid delu?
- Would you recommend suitable materials for the manufacturing?
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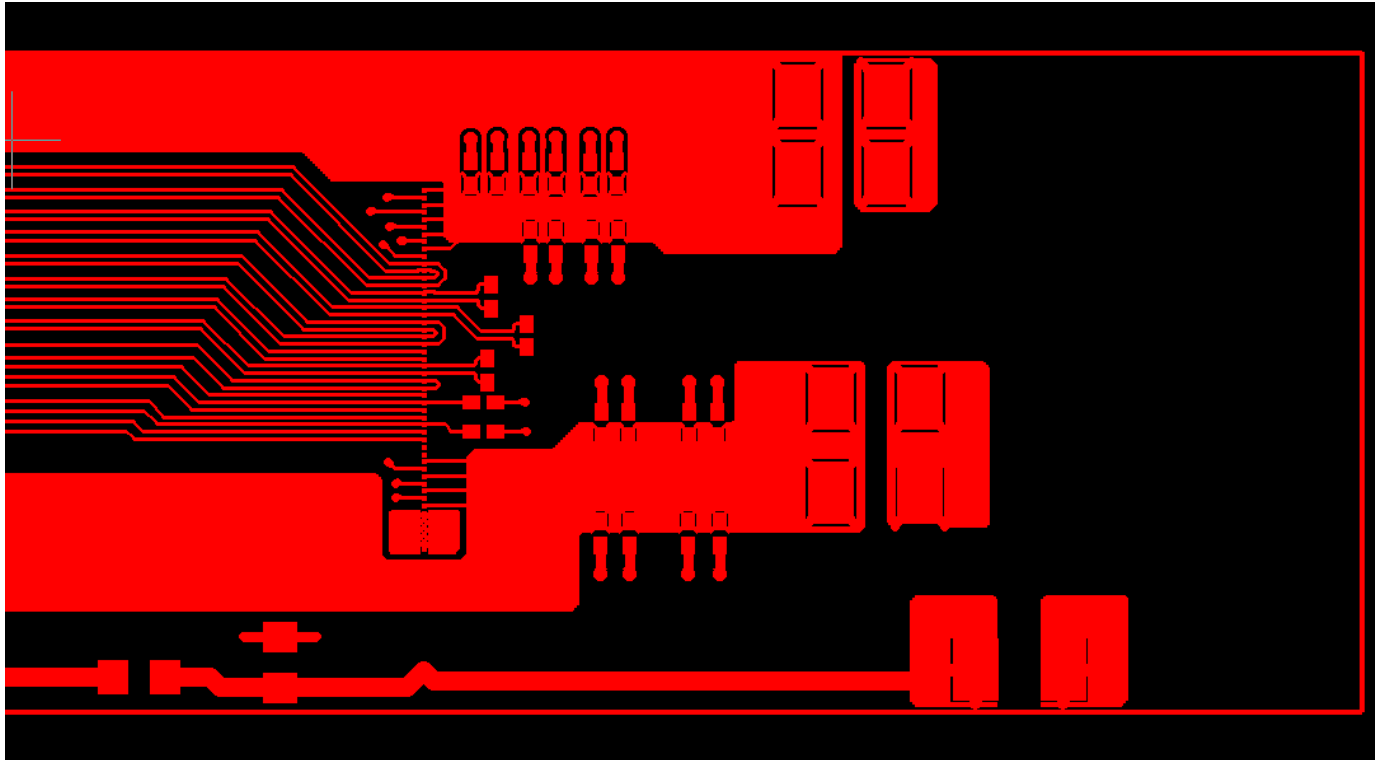
Stackup

spec.

ELGOLINE

- Cover foil ----- 27.5 um 50 mum
- Copper plating ----- 18 um 20 mum
- Base copper ----- 15 um 18 mum
- Polyimide ----- 75 um 50 mum
- Base copper ----- 15 um 18 mum
- Copper plating ----- 18 um 20 mum
- Cover foil ----- 27.5 um 50 mum





- impedance v prototipu niso kontrolirane
- osvetljevanje v dveh kosih, ni perfekten alignment
- coverlayer je radhard preskušen do 660 kGy (66 MRad)
- design na 1000 V nismo preverili na IPC