Cables

Cern standards : IS23 (cables) rev 3 and IS41 rev1 (plastics) :
Allowed dielectrics (according to standards and cern catalogue for commercial names) :

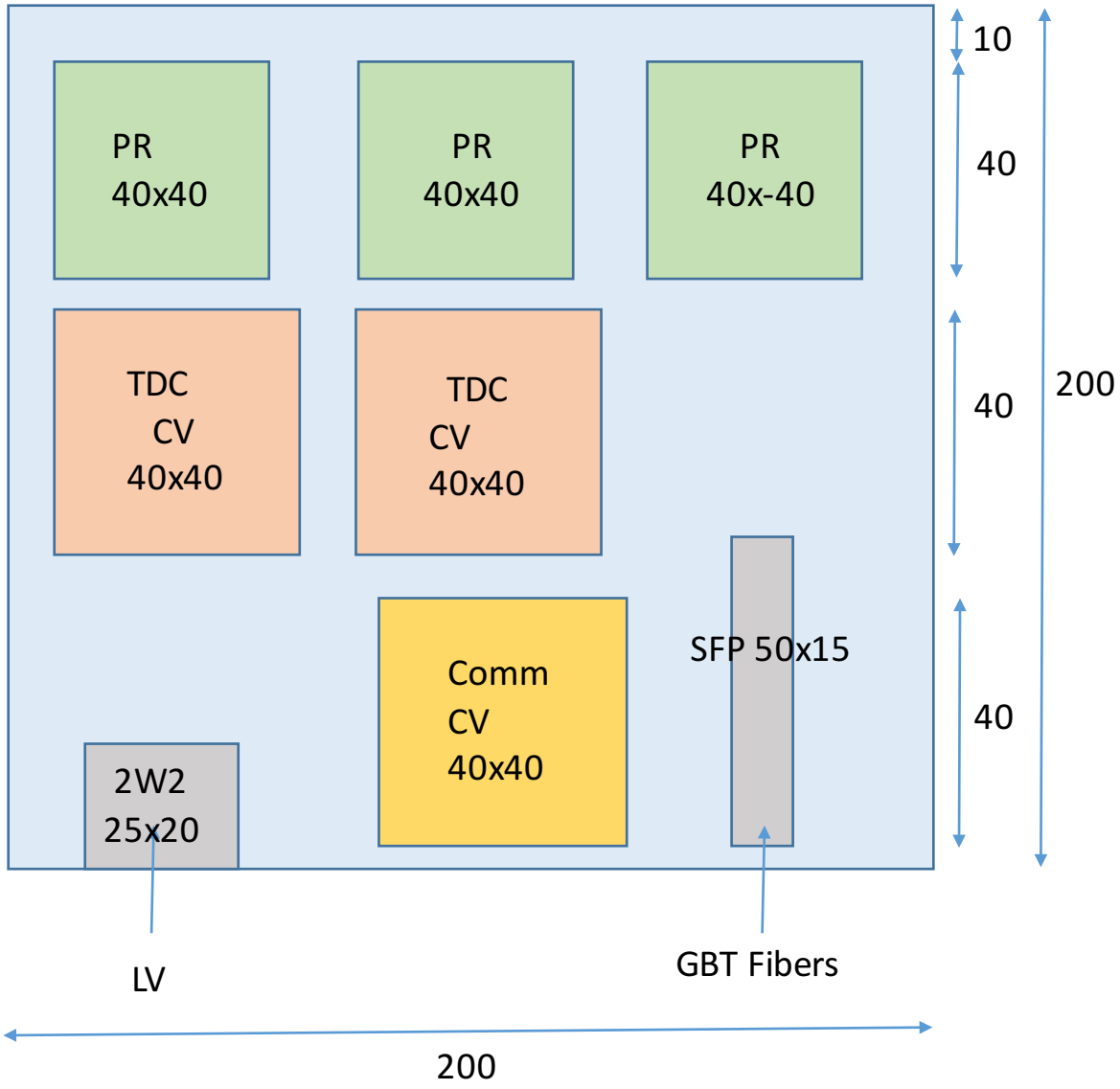
- EPR
- EPDM
- XLPE
- Polylefine
- Polylefine reticulé
- PE cellulaire
- PE HD

Proposed cables to be tested:
LAPP KABEL, 0022736 , 17AWG , 4 conductors , twisted pairs, TPE. Ref Farnell : 281-3376

LAPP KABEL 1123269 17AWG LSZH polymere. Ref Radiospares : 719-1658

LAPP KABEL 281604CY 4 x 1.5mm2. diam total 9.4mm 16 AWG, polymere, ref farnell : 281-3528

Board tentative layout & cabling



Connector to strips : 10mm strip

Petiroc :

TQFP (28mmx28mm), BGA (12mmx12mm)

→ keep 40mmx40 for external components

Cyclone5 FPGA :

1152 FBGA (35mmx35mm)

→ keep 40mmx40mm for decoupling and external components

Aditional components :

SFP cage : 48mmx14mm

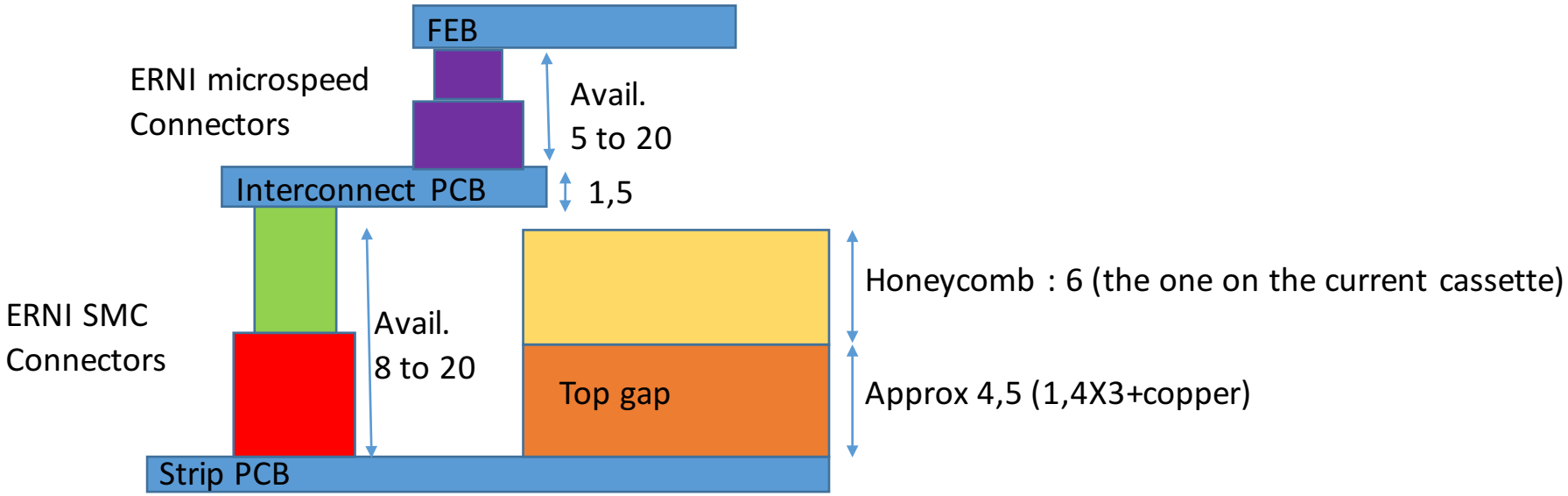
LV connector : 25mmx20mm

FE board -> save : 200mmx200mm

3*40+4*10+ little space

10+40*3+10*3+little space

Distance between strip pcb and FEB



With interconnect PCB :

Minimal available distance between top of strip PCB anf bottop of FEB : 14,5 mm (without flex)

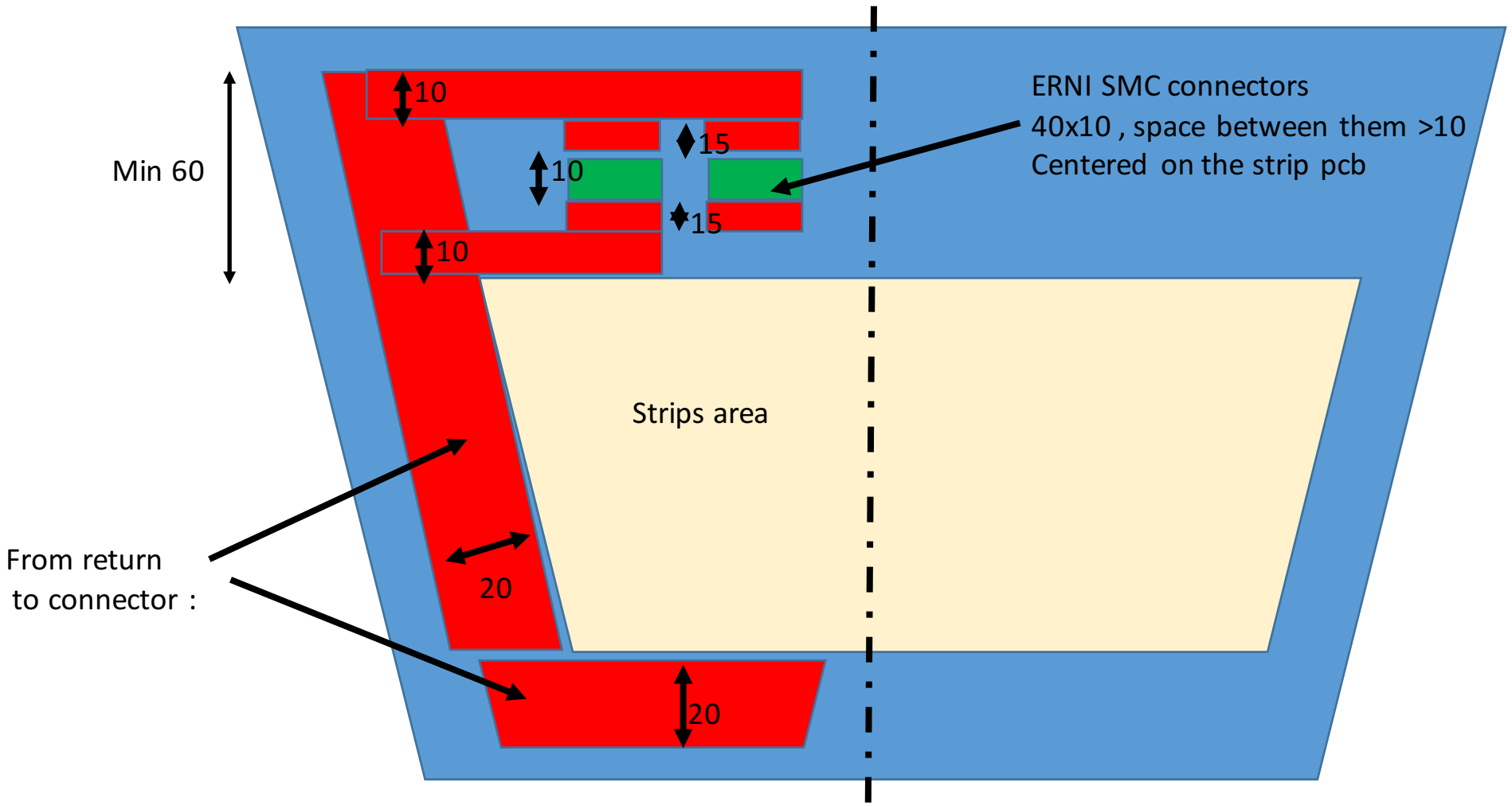
Maximal available distance between top of strip PCB anf bottop of FEB : 41,5 mm (without flex)

Without interconect PCB :

Minimal available distance between top of strip PCB anf bottop of FEB : 8 mm

Maximal available distance between top of strip PCB anf bottop of FEB : 20 mm

Position of FEB by respect to cassette (1)



Would be nice to keep 10mm more around all the strip pcb for ground :
Save : 70 on top, 30 on side, 30 on bottom