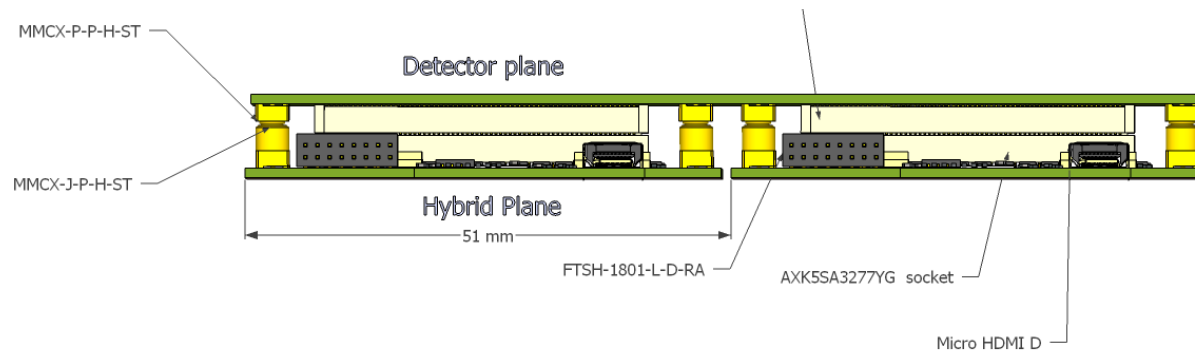
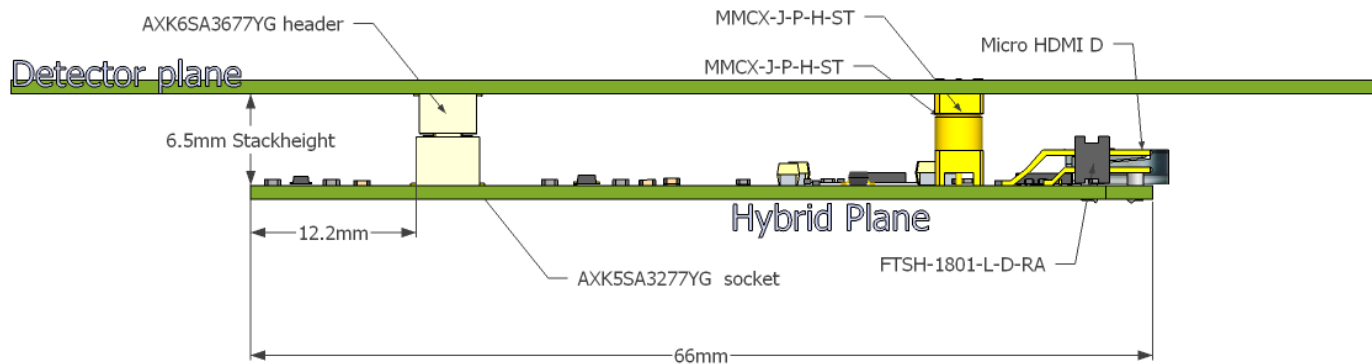


Connectors for MPGDs

APV hybrid on detector

Situation with Panasonic connector

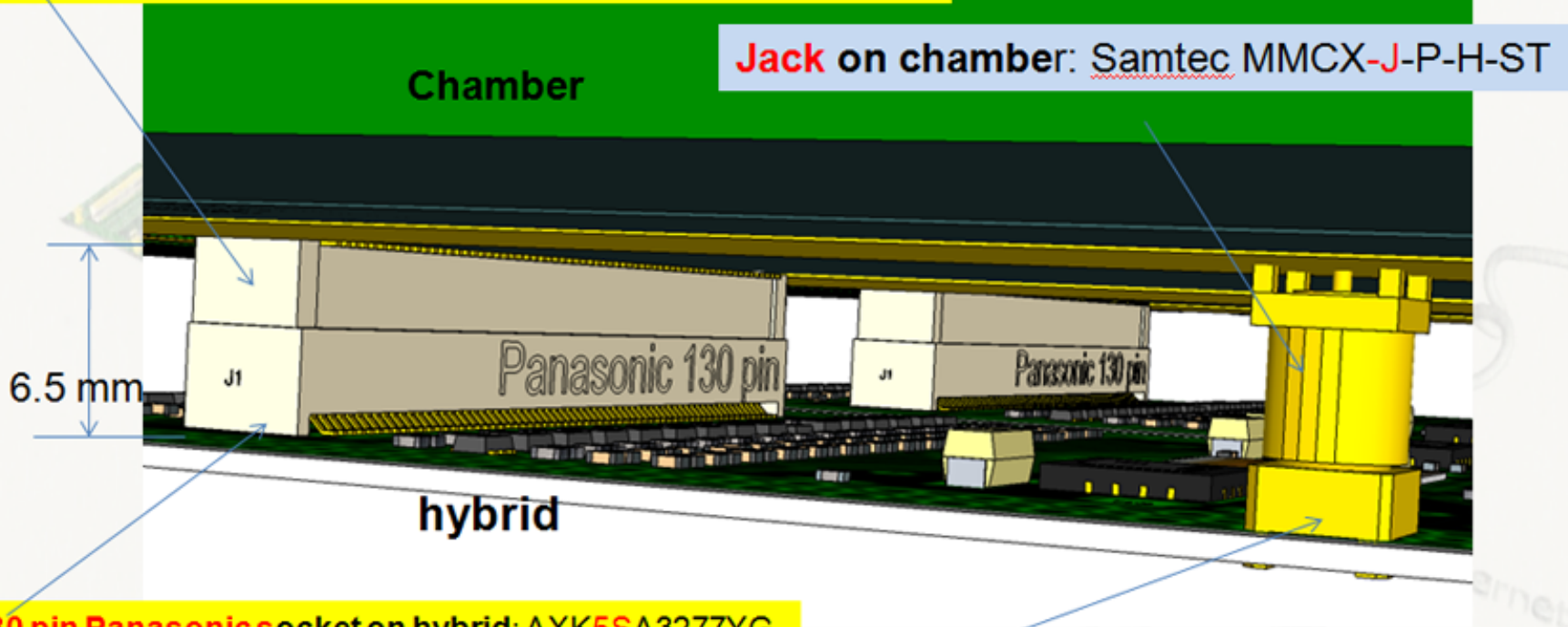


RD51 standard connectors

MMCx provides low impedance to detector GND (Panasonic has only 2 GND pins)

**130 pin Panasonic 6.5 mm stackheight
header on chamber: AXK6SA3677YG**

Jack on chamber: Samtec MMCX-J-P-H-ST



130 pin Panasonic socket on hybrid: AXK5SA3277YG
lifetime insertion cycles: 50
60 mOHM contacts

chamber ground and screwless fixation:
Plug on hybrid: Samtec MMCX-P-P-H-ST
2.5 mOHM, 0-6 GHz

Panasonic stopped production of 130 pin !

BUT

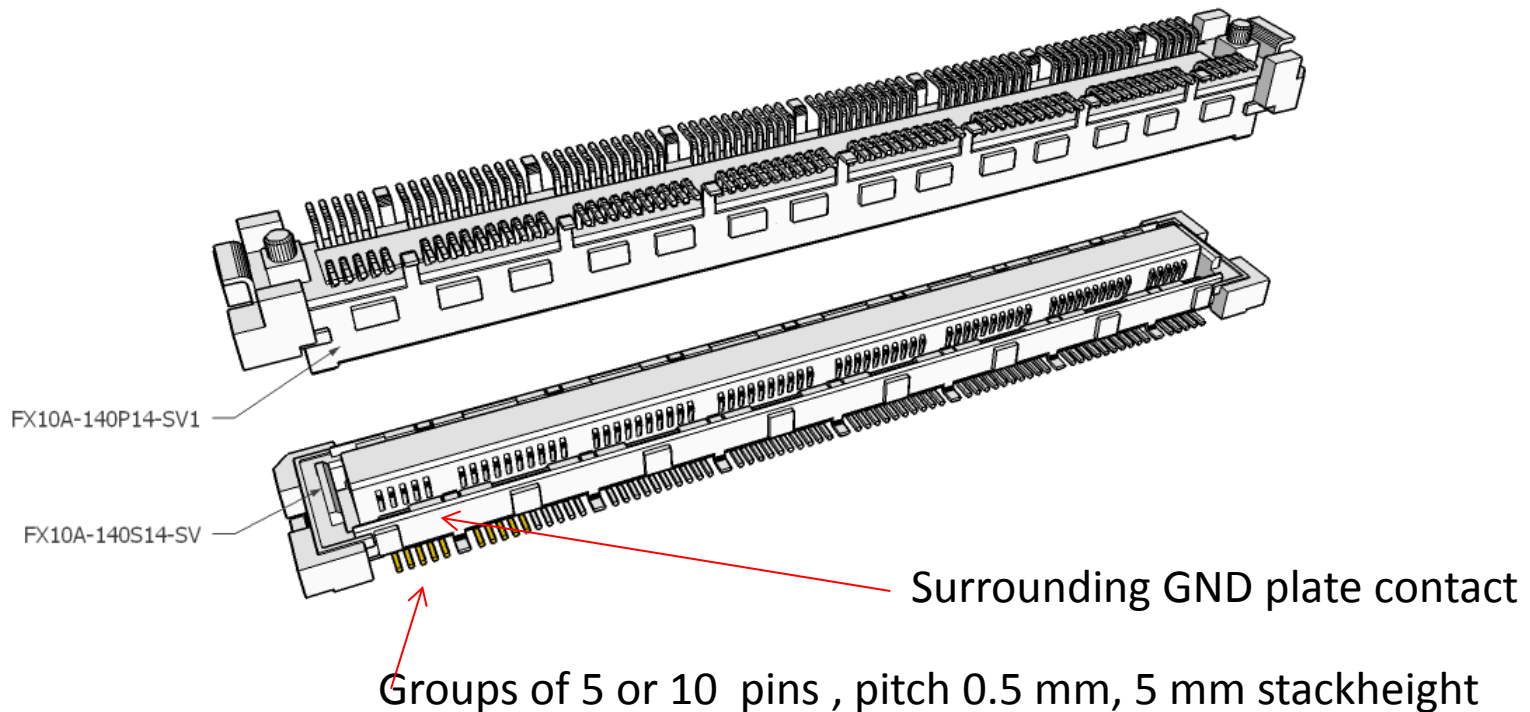
CERN store found second source and bought additional quantities

Short/medium term: Panasonic 130
pin from CERN store stock

Longterm replacement proposal :
Hirose 140 pin

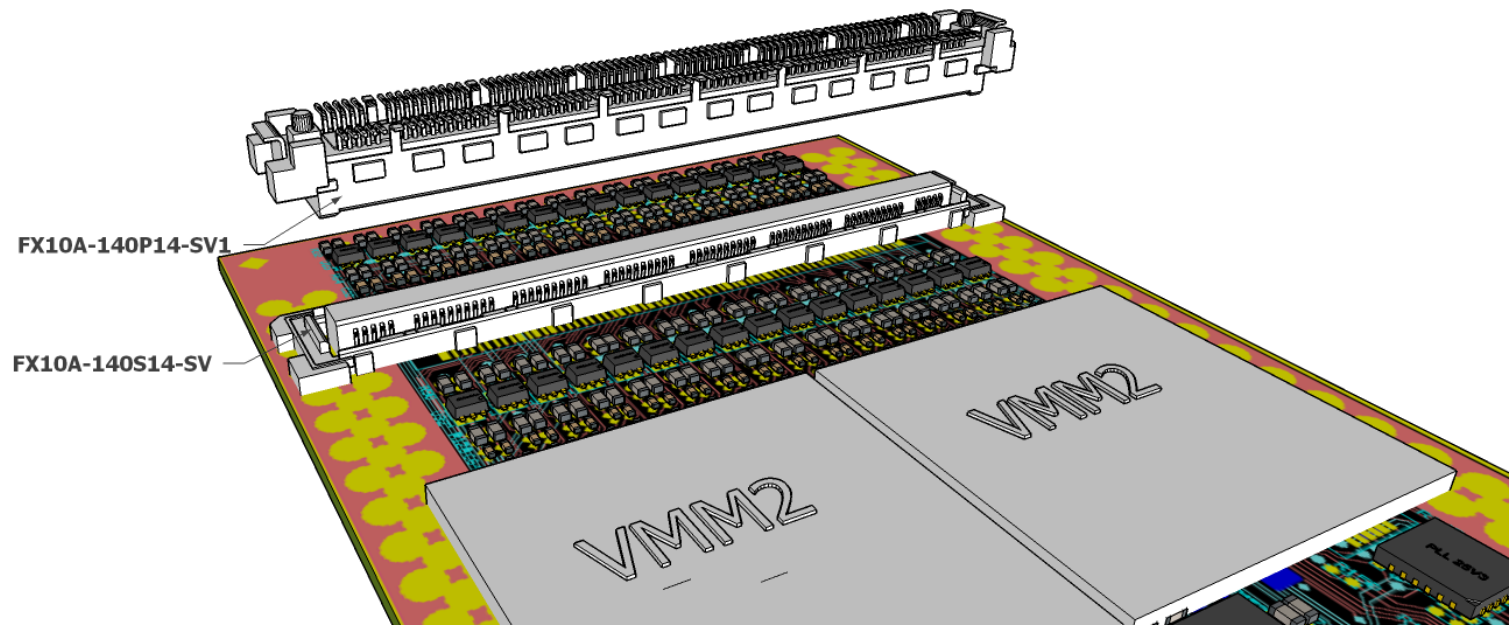
Hirose 140 pin with surrounding GND contact

Low GND impedance to detector included, MMCX in principle not needed any more



Xmission characteristics up 15 Gbps

It just fits on 50 mm hybrids



Transition proposal

2016 : start hybrid versions with Hirose connectors
start equipping MPGDs with Hirose connectors

2017 : phase out hybrid production with Panasonic connectors
phase out MPGDs with Panasonic connectors