

12.06.2023

Terzina: camera architecture meeting ASIC board

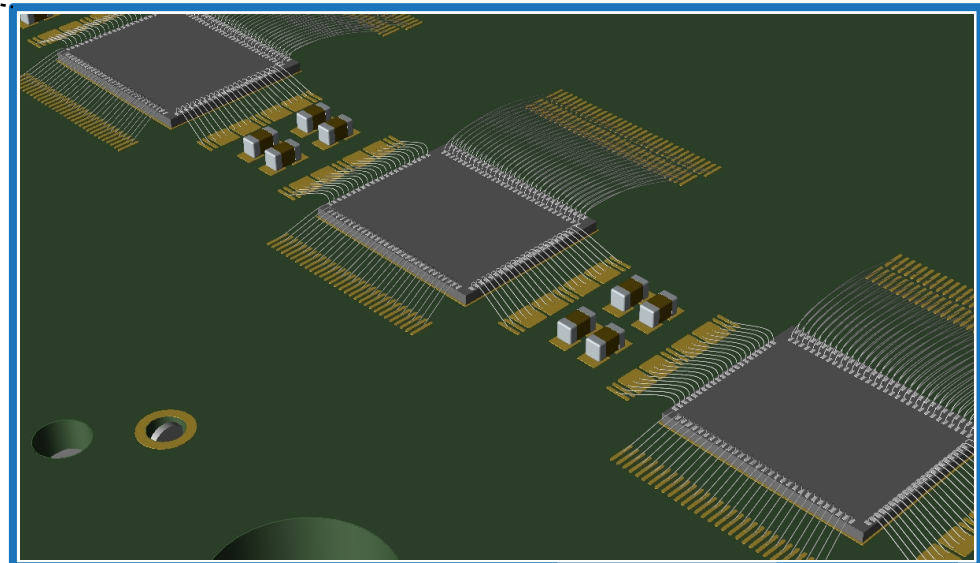
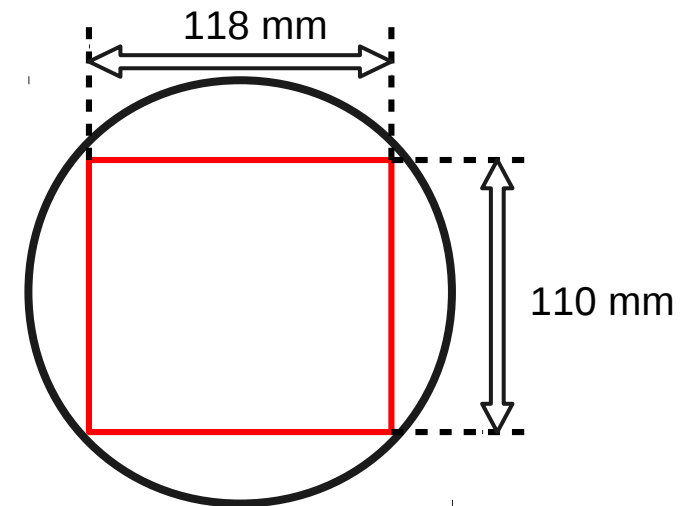
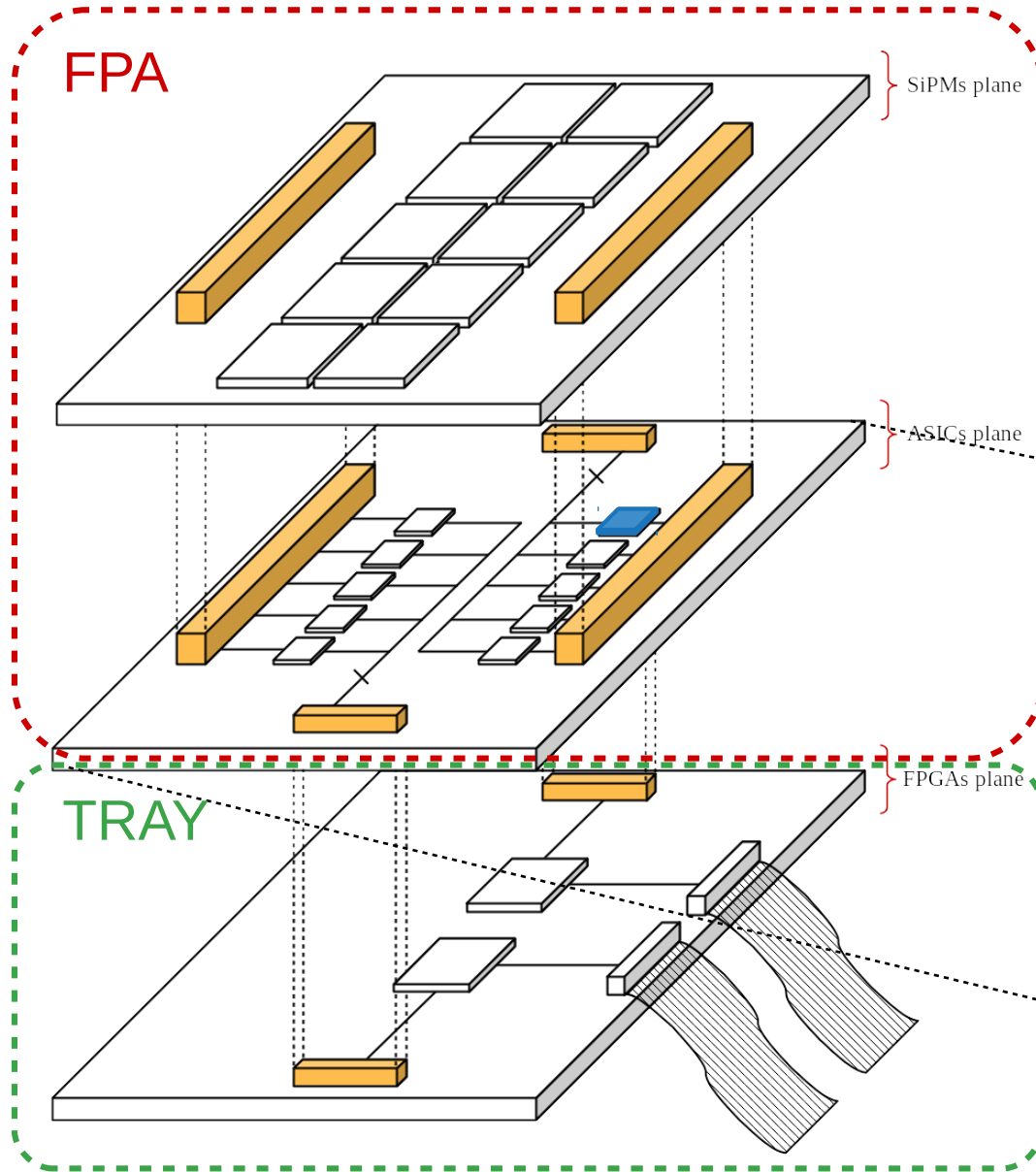
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Istituto Nazionale di Fisica Nucleare

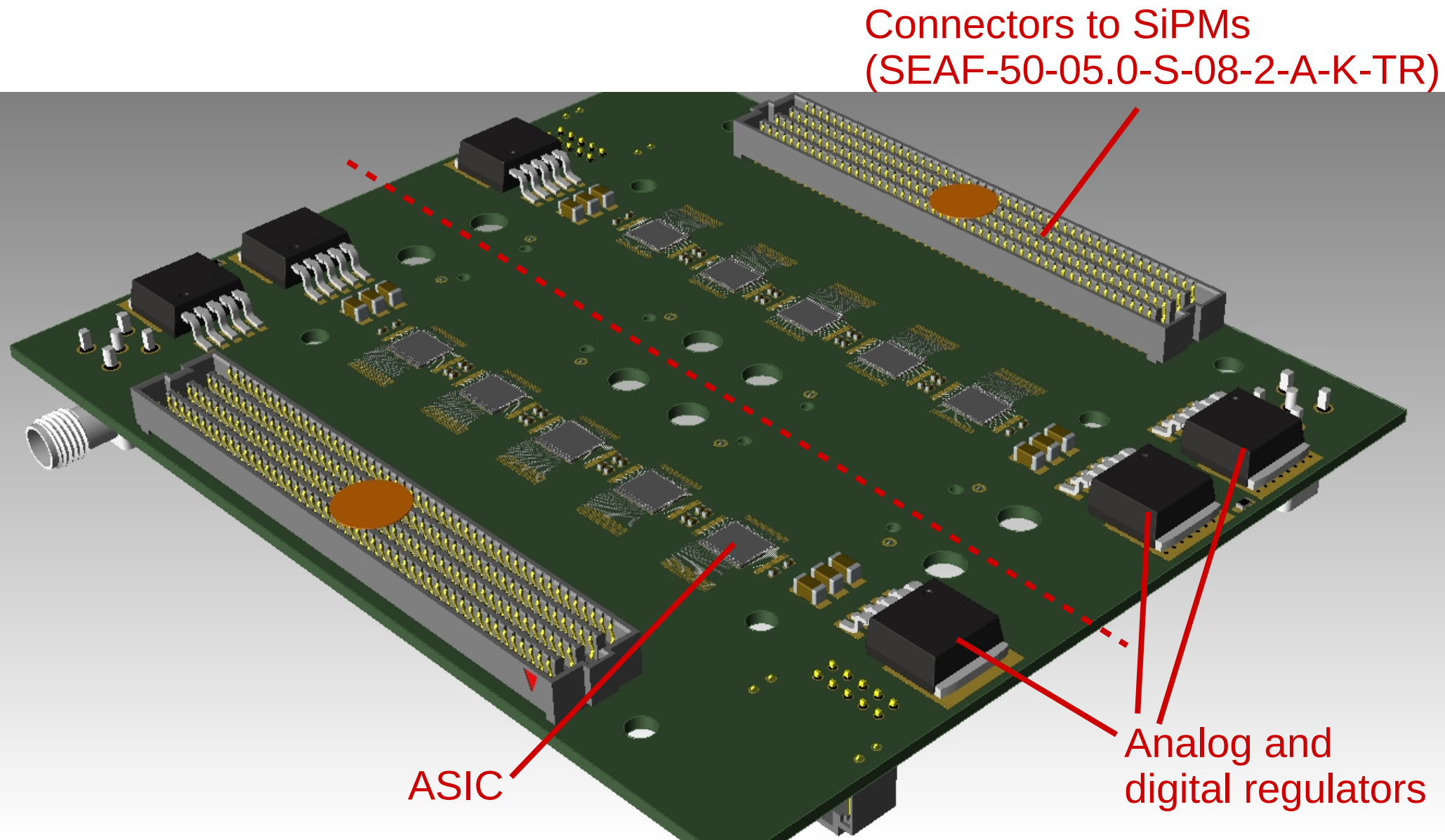
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Camera architecture and ASIC board

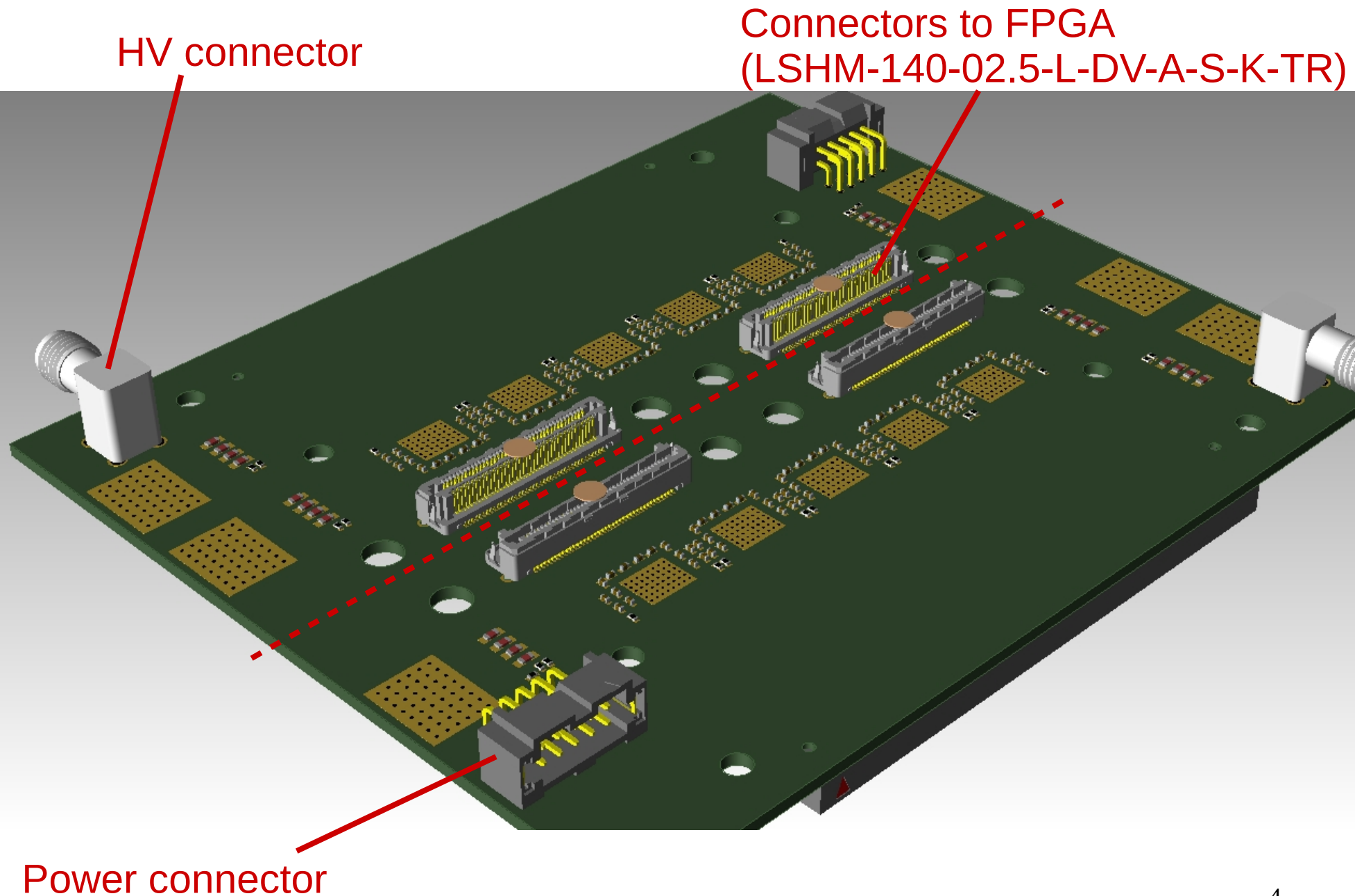


ASIC board

Top view

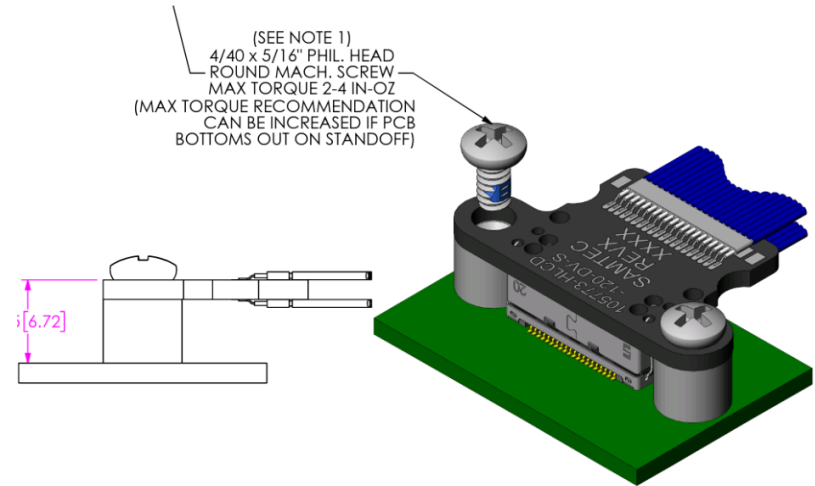
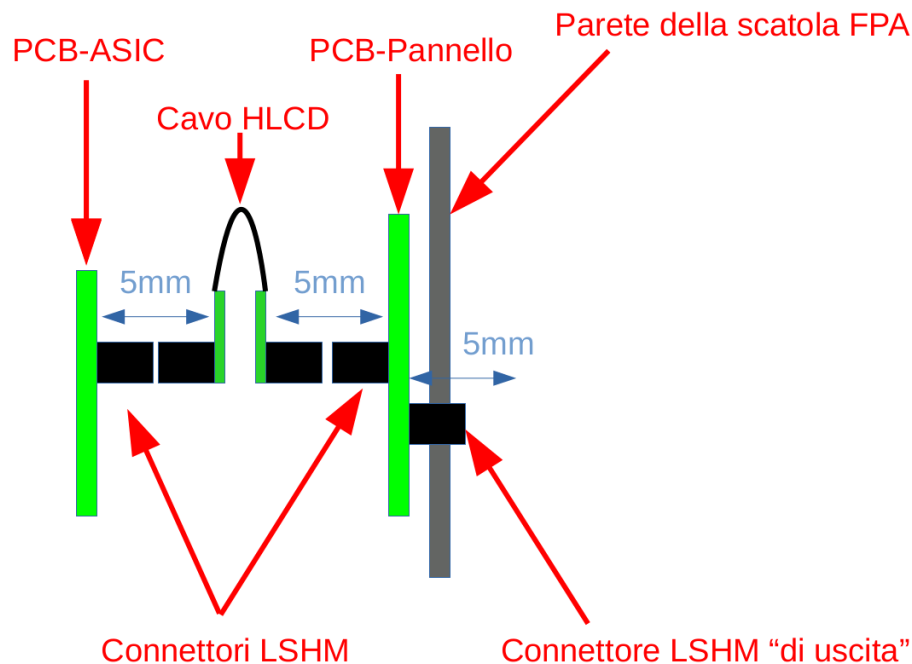


Bottom view

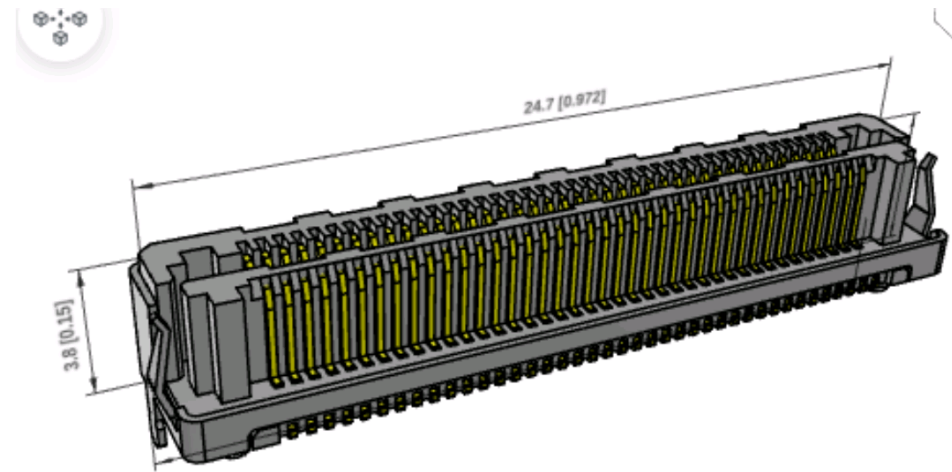


Scenario 1

- ASIC board:
 - 4 connectors LSHM-140-02.5-L-DV-A-S-K-TR (SAMTEC “SET rate”)
 - 4 cables HLCD-40-20.00-TRS-TRS-1
- Since HLCD is a cable to board-to-board connections can not be suitable for the FPA.
- PCB adapter?



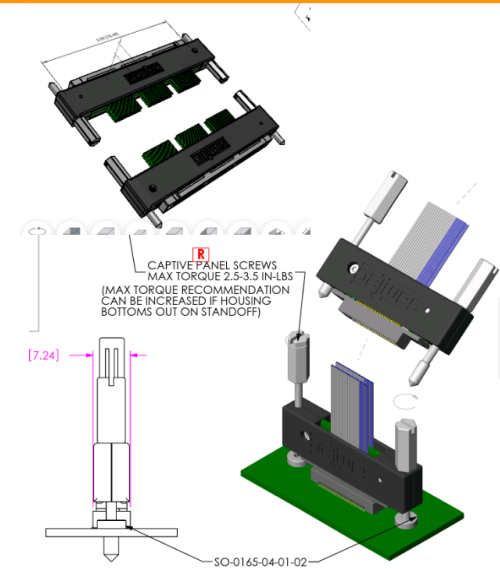
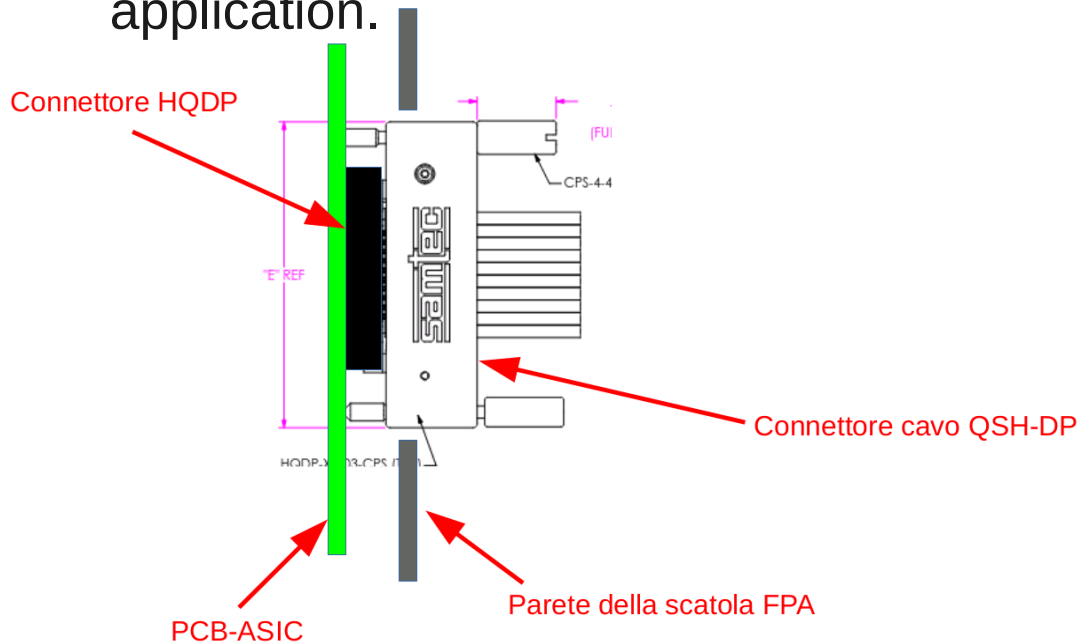
Cable HLCD-40-20.00-TRS-TRS-1



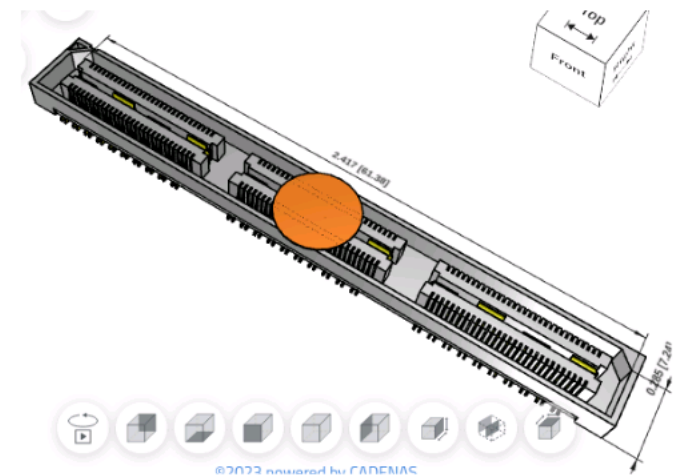
Board connector LSHM-140-02.5-L-DV-A-S-K-TR

Scenario 2

- ASIC board:
 - 2 connectors QSH-060-01-L-D-DP-A-K-TR (NOT “SET”)
 - 2 cables HQDP-060-30.00-SEU-SEU-7-B
- “-DP-” cables/connectors are specifically made for differential signals (pair of shielded cables “Twinax”), thus they would be totally suitable for the current application.



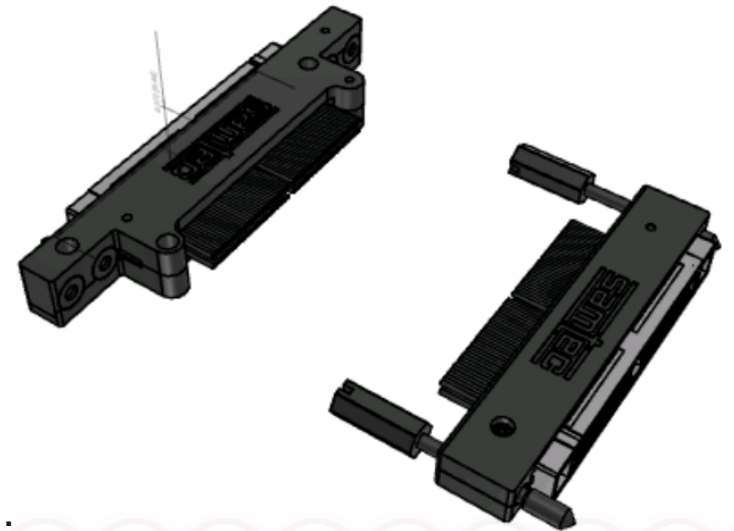
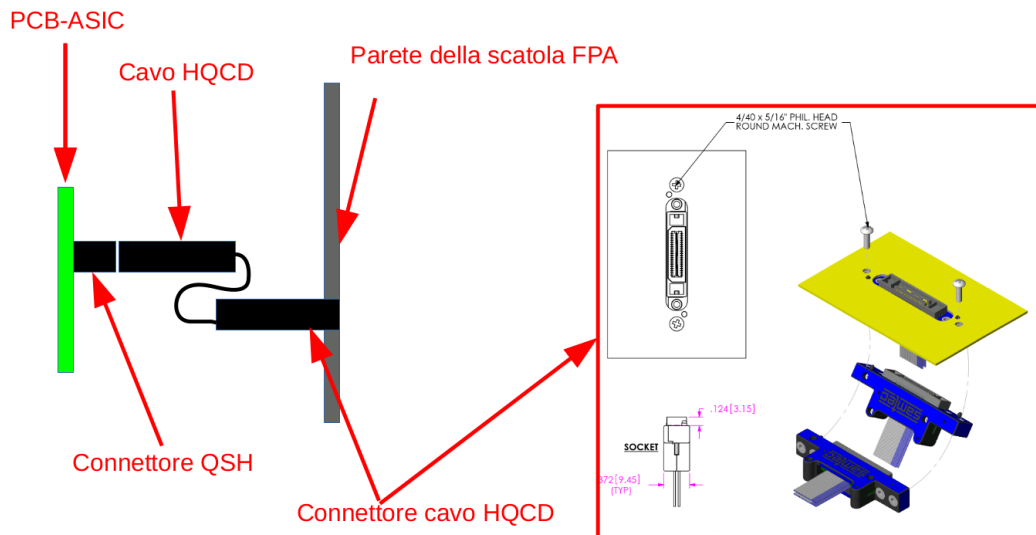
Cable HQDP-060-30.00-SEU-SEU-7-B



Board connector QSH-060-01-L-D-DP-A-K-TR

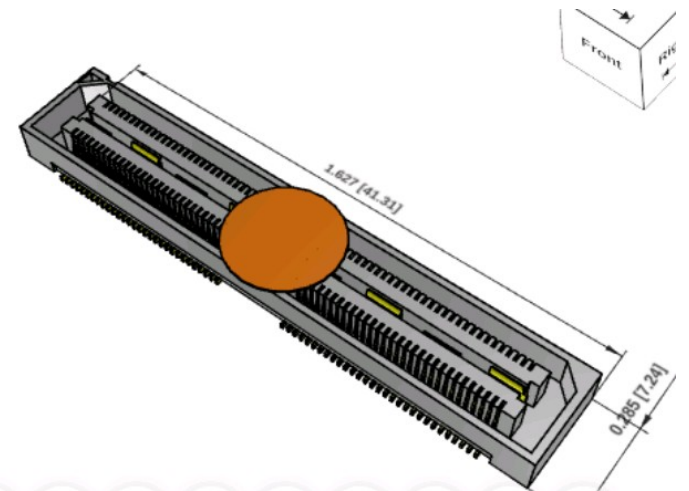
Scenario 3

- ASIC board:
 - 2 connectors QSH-060-01-L-D-A-K-TR (NOT “SET”)
 - 2 cables HQCD-060-01.72-SPU-SEU-3-S
- The connector is available (dealer: Mouser), the cable must be verified.
- Mechanical benefit due to the “panel connection”.



Cable:

- HQCD-060-01.72-SPU-SEU-3-S (60 pairs)
- HQCD-060-01.72-SPU-SEU-3-S (90 pairs)



Board connector:

- QSH-060-01-L-D-A-K-TR (60 pairs)
- QSH-090-01-L-D-A-K-TR (90 pairs)

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