

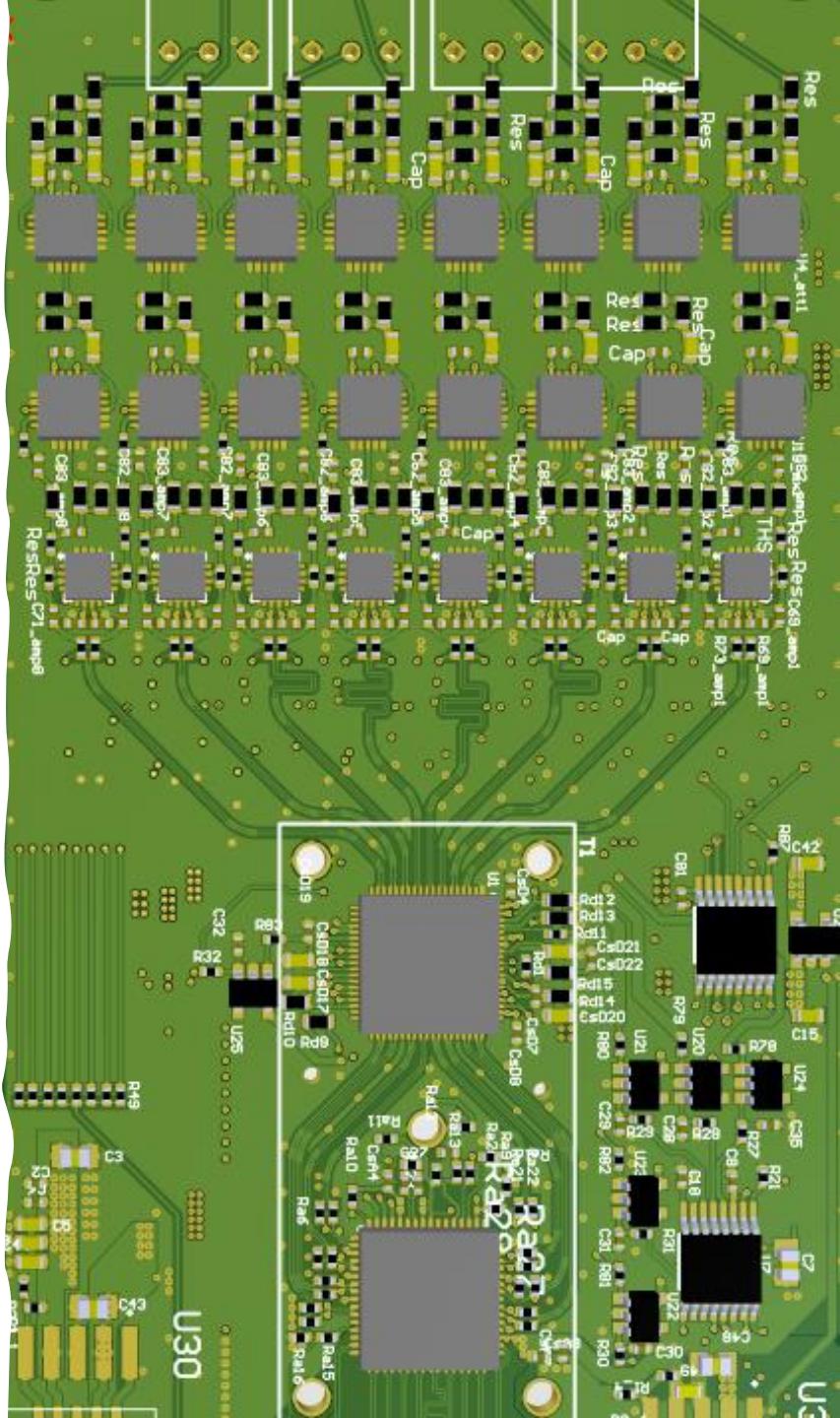
TGC-Charge Monitoring System

EMCI Carrier board

Victor Arredondo

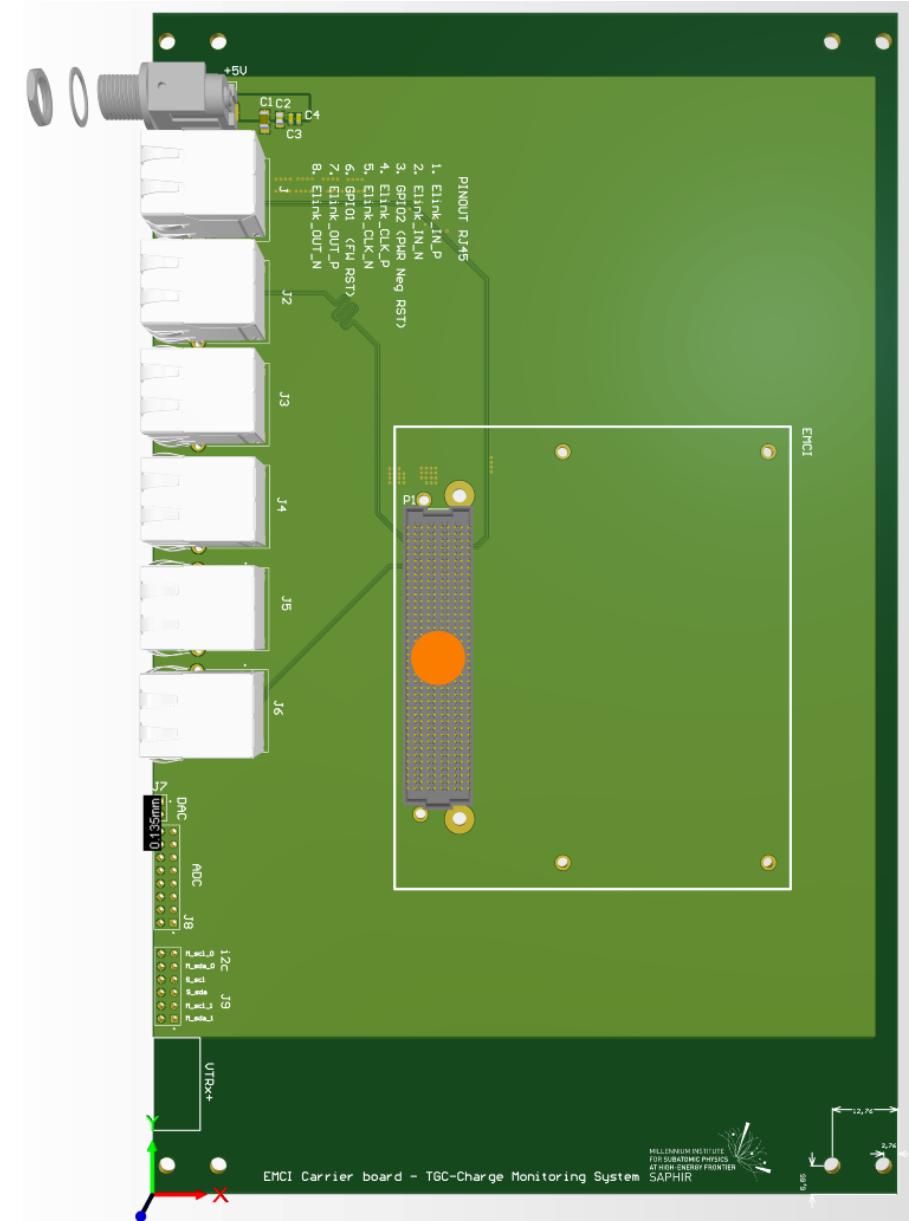


MILLENNIUM INSTITUTE
FOR SUBATOMIC PHYSICS
AT HIGH-ENERGY FRONTIER
SAPHIR



Design

1. 6 Elinks connection (Tx,Rx,CLK) per rj45
2. 8 channel ADC input pin header 8x2
3. 1 DAC input pin header 2x1
4. 12 GPIO, 2 per rj45
5. 5 [V] input
6. Size : 230x145mm

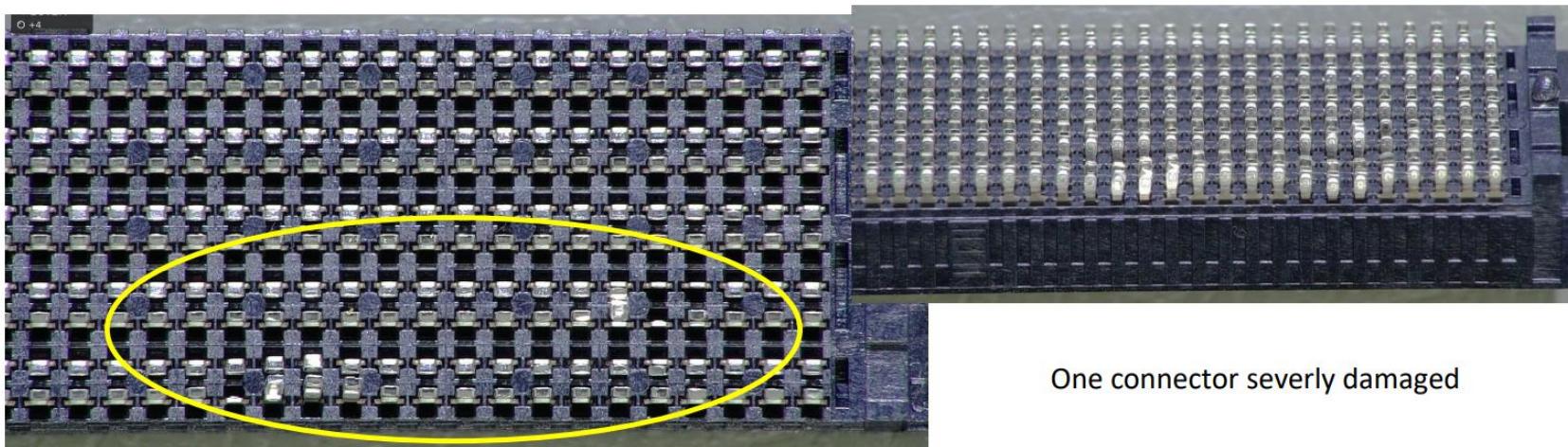
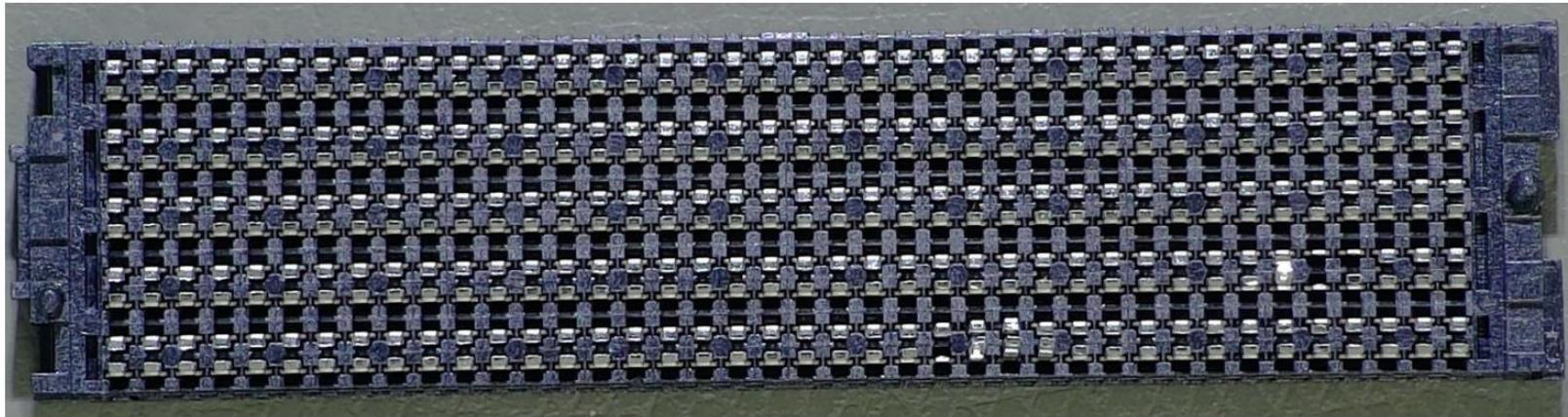


Assembly results

- Comments: Vita FMC connector can only be solder in reflow ovens. Using hot air station is impossible. Two connector were damaged in this process (my fault).
- One connector came with damaged from the delivery process.
- As a results, only 2 of 5 board will be available to test EMCI.
- Two boards were assembled at CERN assembled service laboratory.

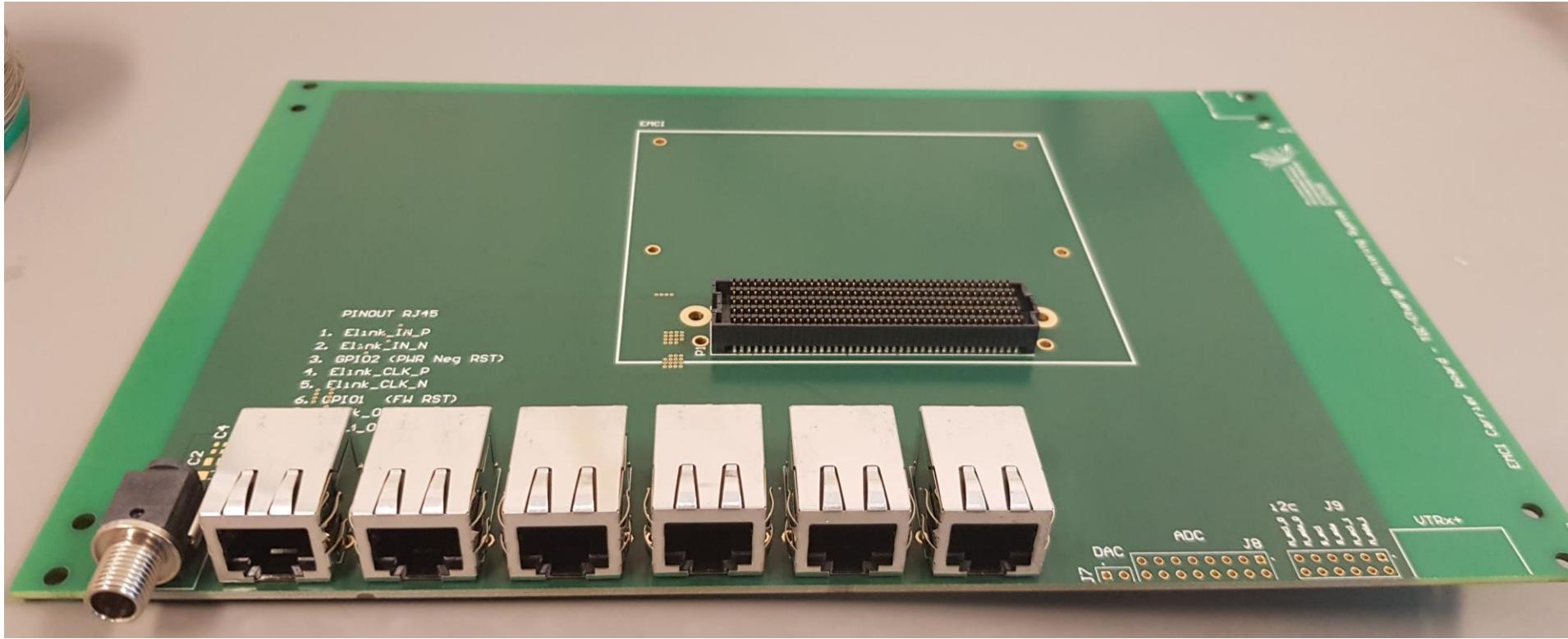
Assembly results

- Image of Vita FMC connector damaged.



Assembly results

- Final board assembled:



Future work

- Start Elink firmware communication protocol
- Ask for a EMCI board to test communication
- In our gantt chart this task has no delays

