

DESIGN REVIEW

HV4CB & HV4CDB

Vihtori Virta

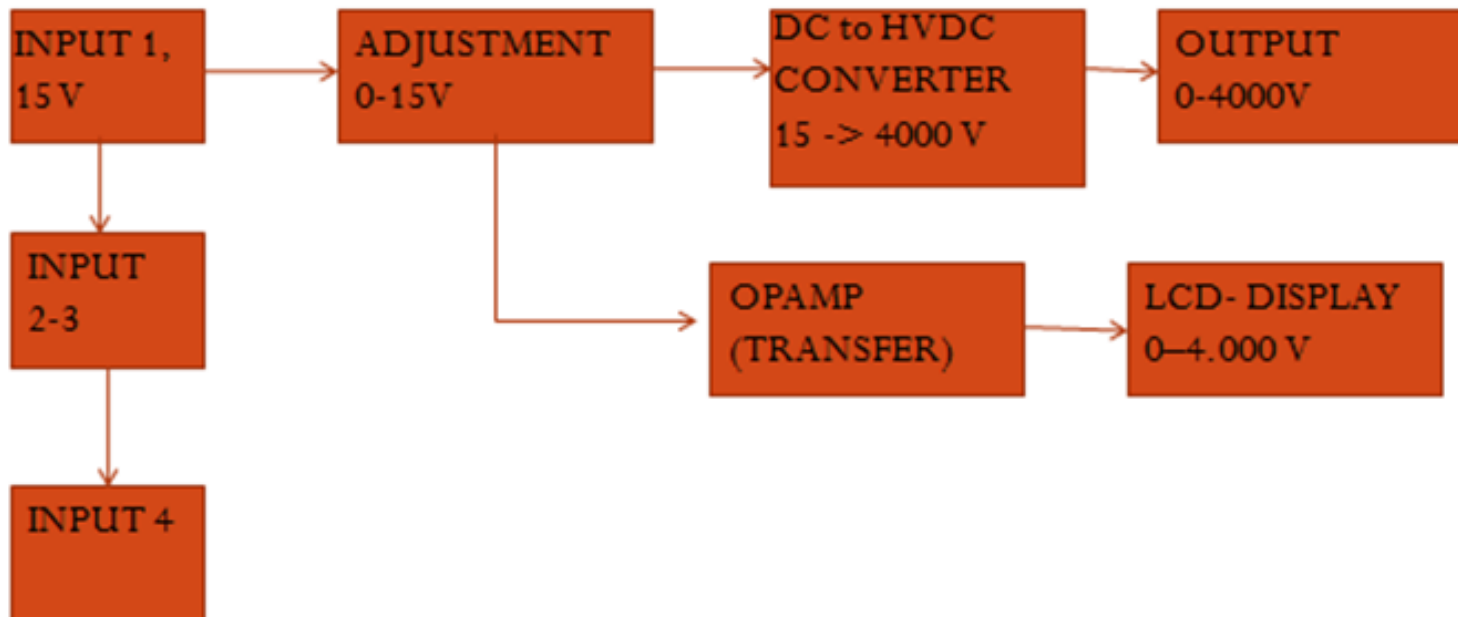
INTRO

- Variable 4-Channel high voltage power supply for powering sl10 photo multipliers in Belle2 detector



BLOCK DIAGRAM AND SPECIFICATION

- 4- Channels
- Potentiometer adjustment
 - 0-4000V
- LV- Monitoring
 - $\pm 1V$ accuracy

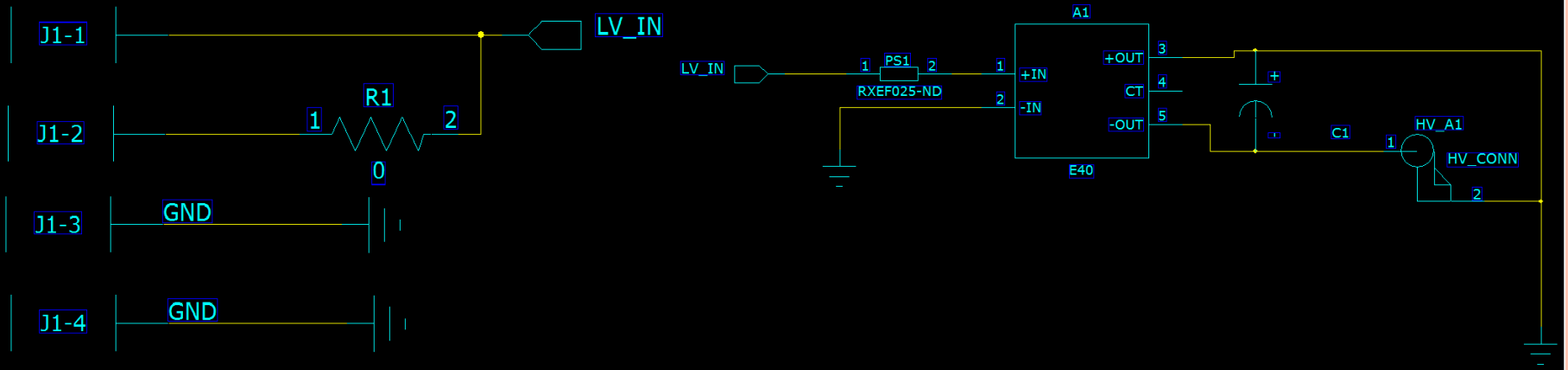


SCHEMATICS

HV4CB

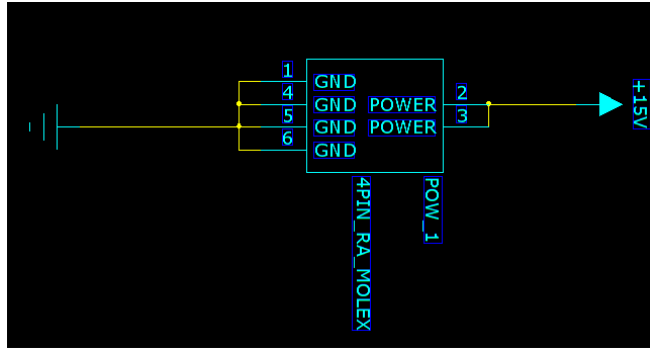
Board connection

High Voltage

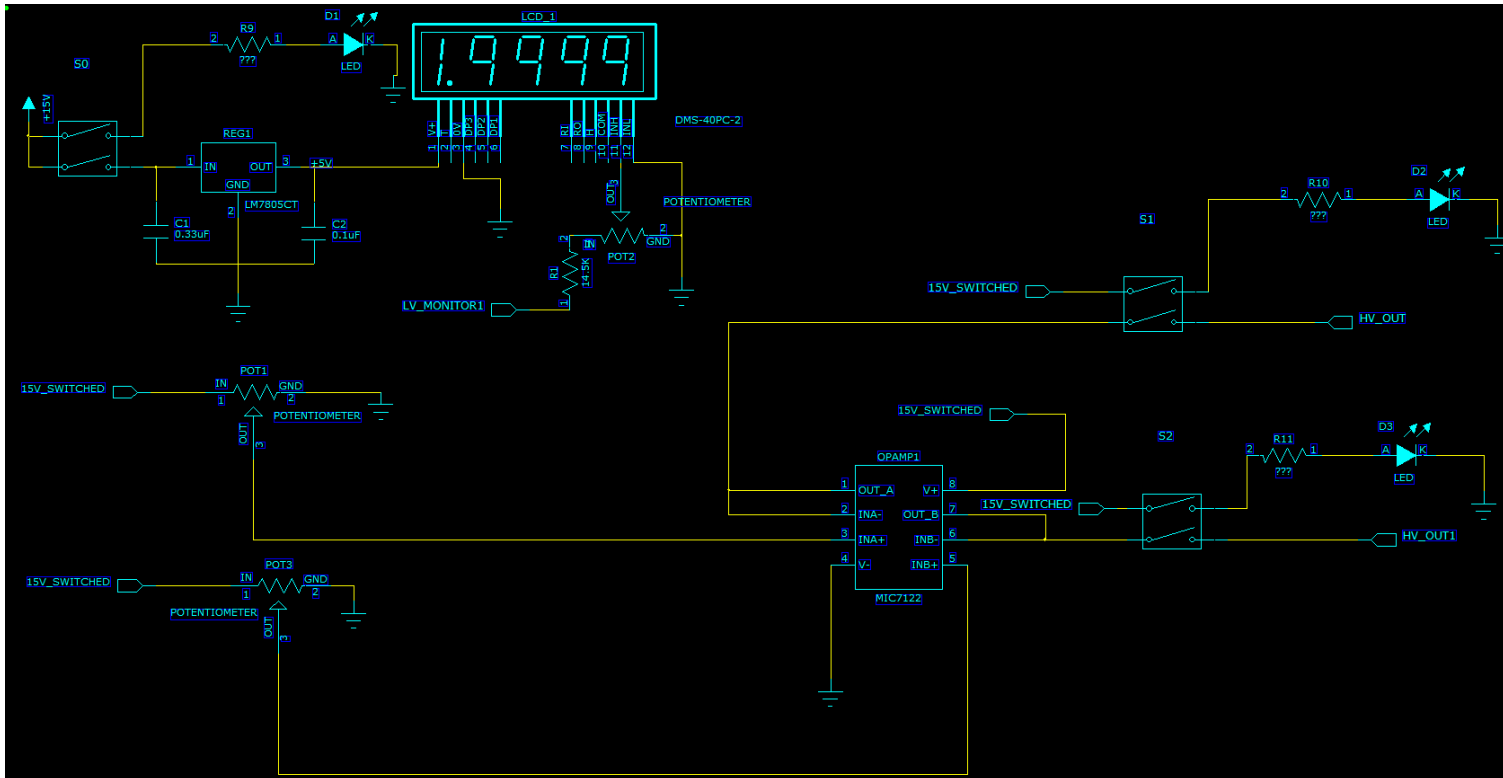
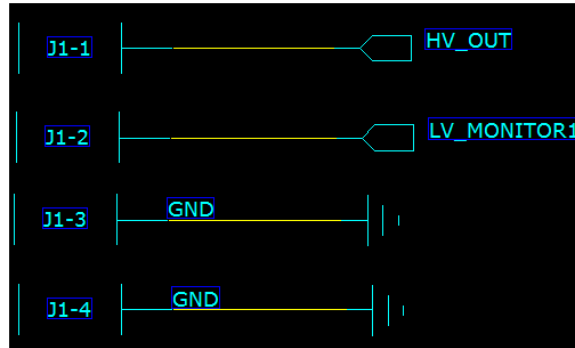


HV4CDB

Power connector



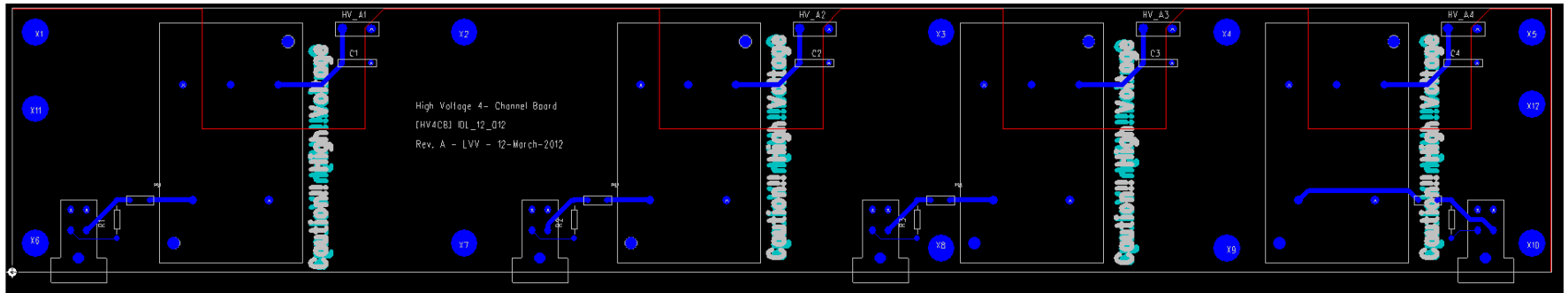
Board Connection



LAYOUT AND BOARD EXAMPLE

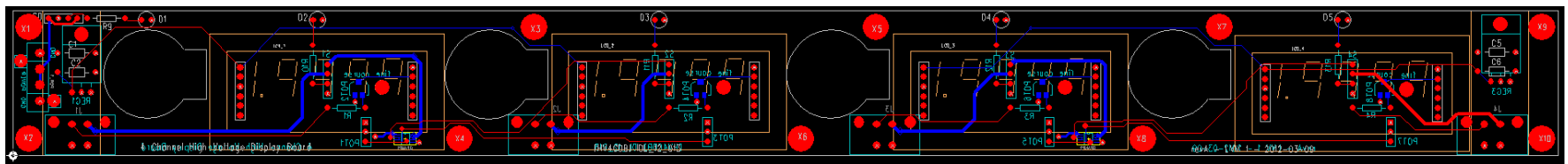
HV4CB

High Voltage 4-Channel Board

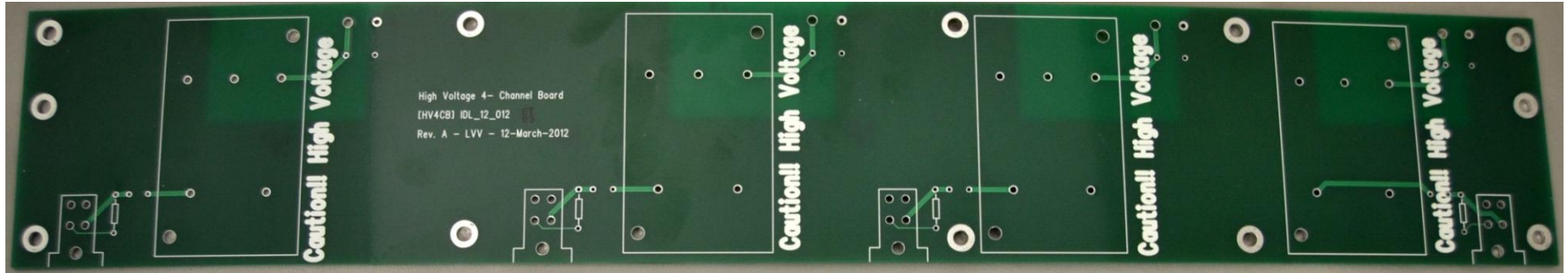


HV4CDB

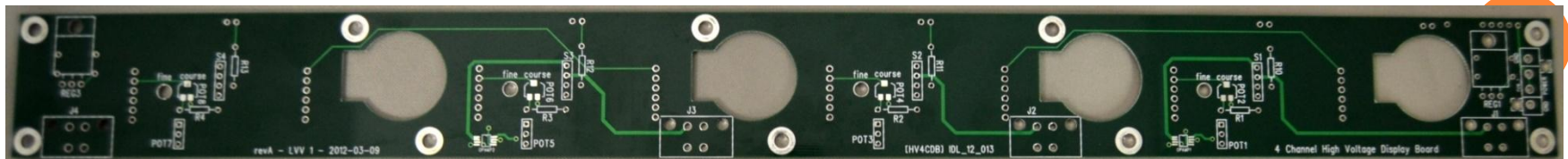
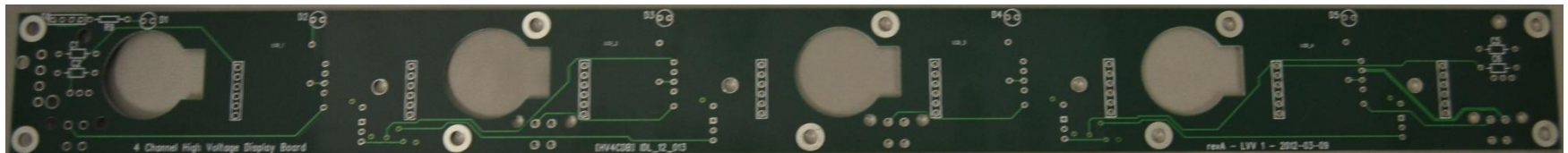
High Voltage 4-Channel Display Board



HV4CB

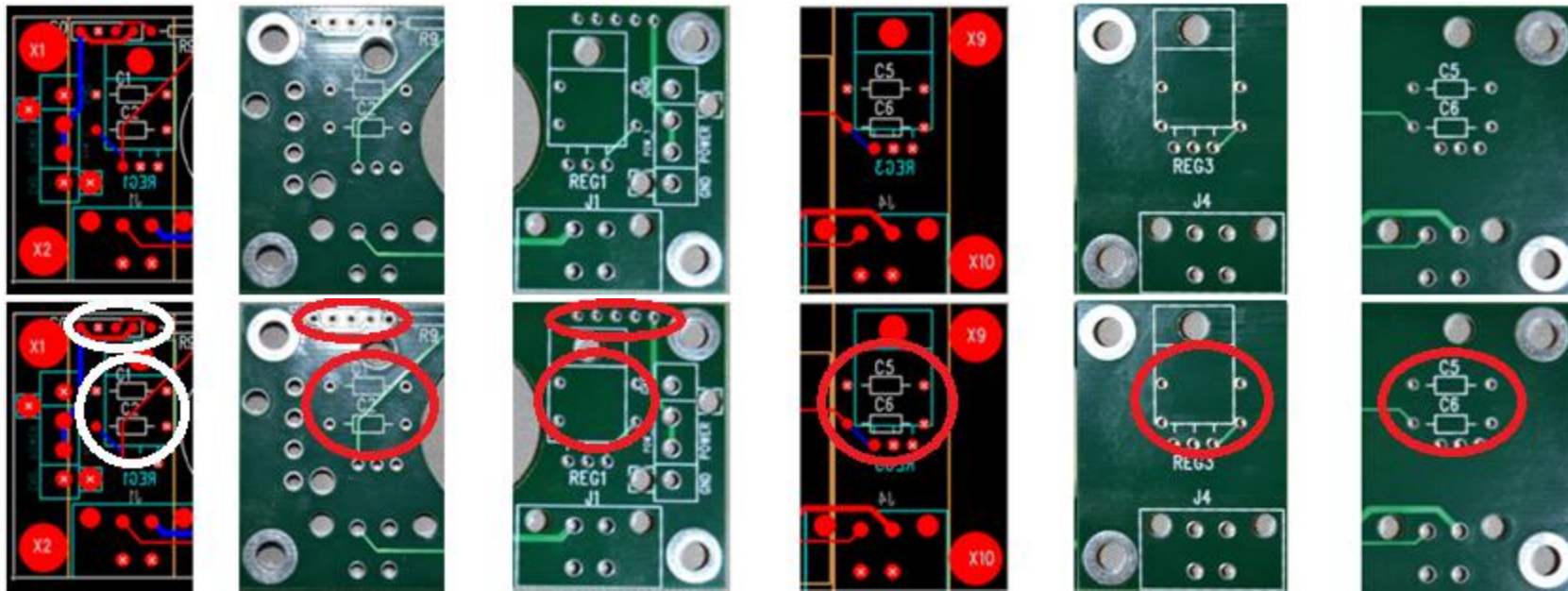


HV4CDB



PROBLEMS AND SOLUTIONS

- Capacitors are through hole components
 - Can't fit under regulator
- Next version should have surface mount capacitors
- 15 V is too close to regulator
 - Move regulator or connector



THANK YOU FOR YOUR
ATTENTION

QUESTIONS?

