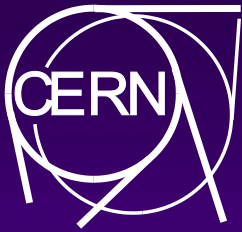
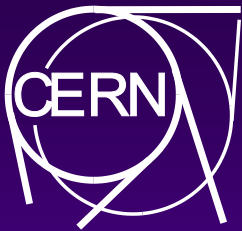


# **New WireGrid electronics at the PS-complex (incl. L4)**

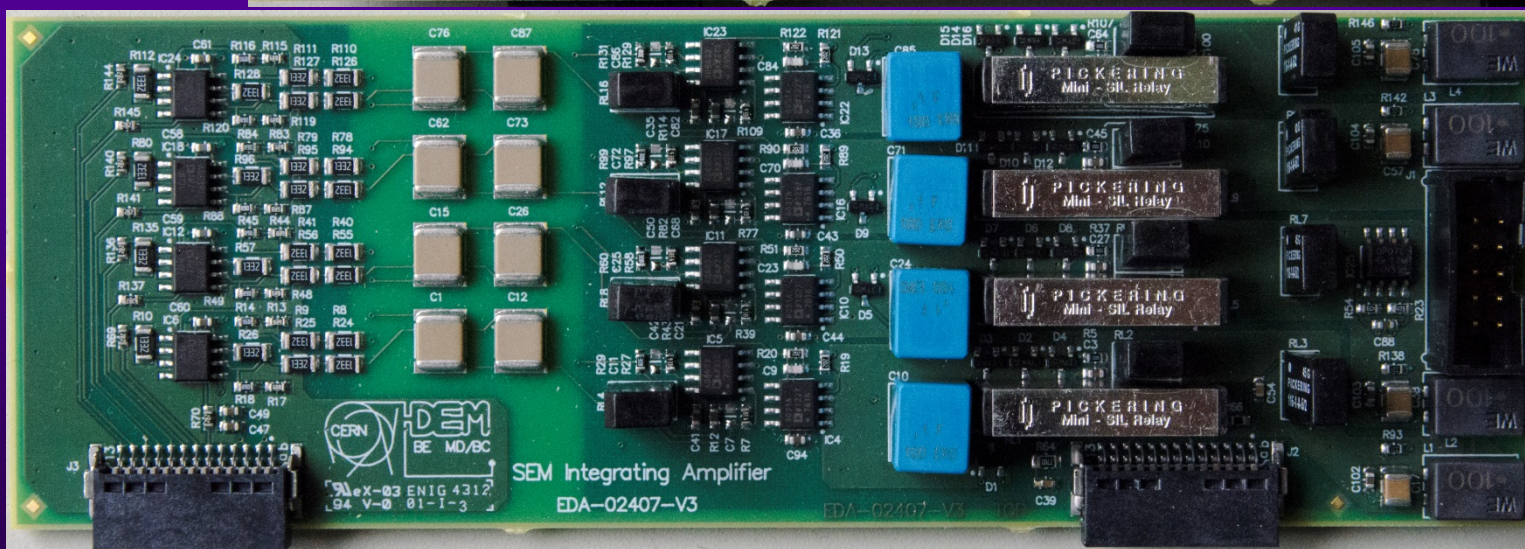
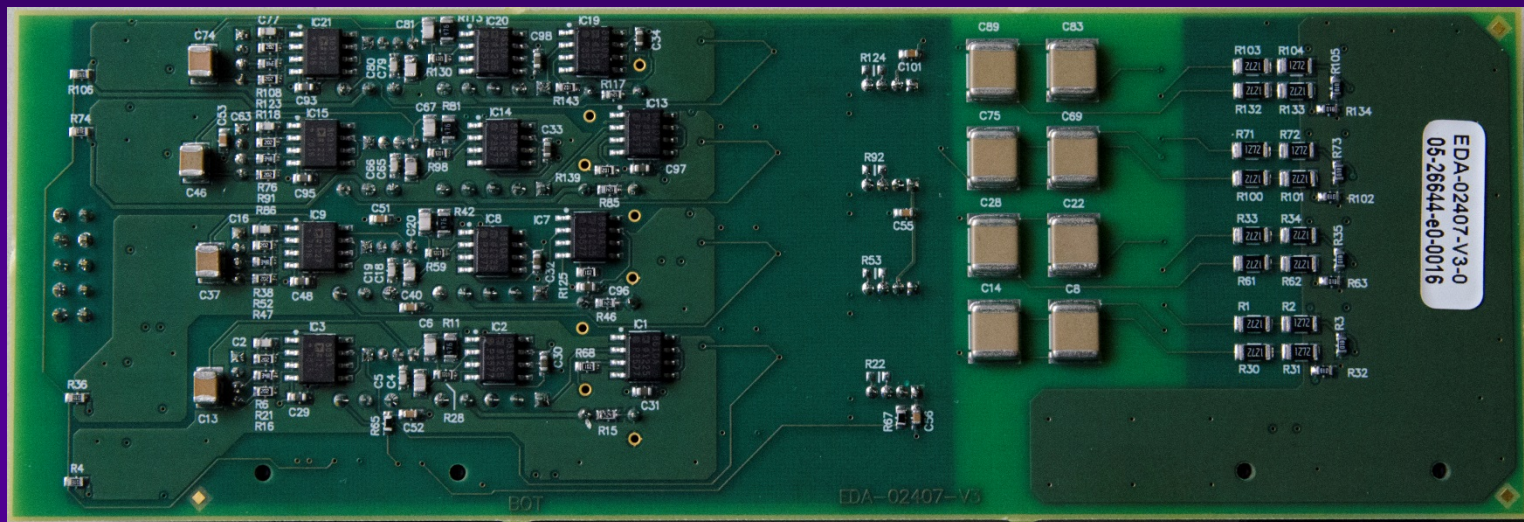


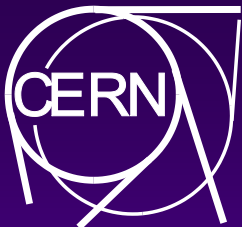
# Technology Choice.

- ◆ No choice concerning where to place the equipment.
- ◆ To reach the specifications the electronics should be near the detectors (Maximum ~8m for Linacs, ~15m for circular machines).
- ◆ Therefore we have opted for a system with only the absolutely necessary electronics near the beamline:
  - ◆ Only amplifiers,
  - ◆ No logic,
  - ◆ Remote power supplies.
- ◆ Technical details:
  - ◆ Bias  $\pm 120V$  directly onto measuring wires, the complete input-amplifier will be on this voltage.
  - ◆ 4 channels per card.

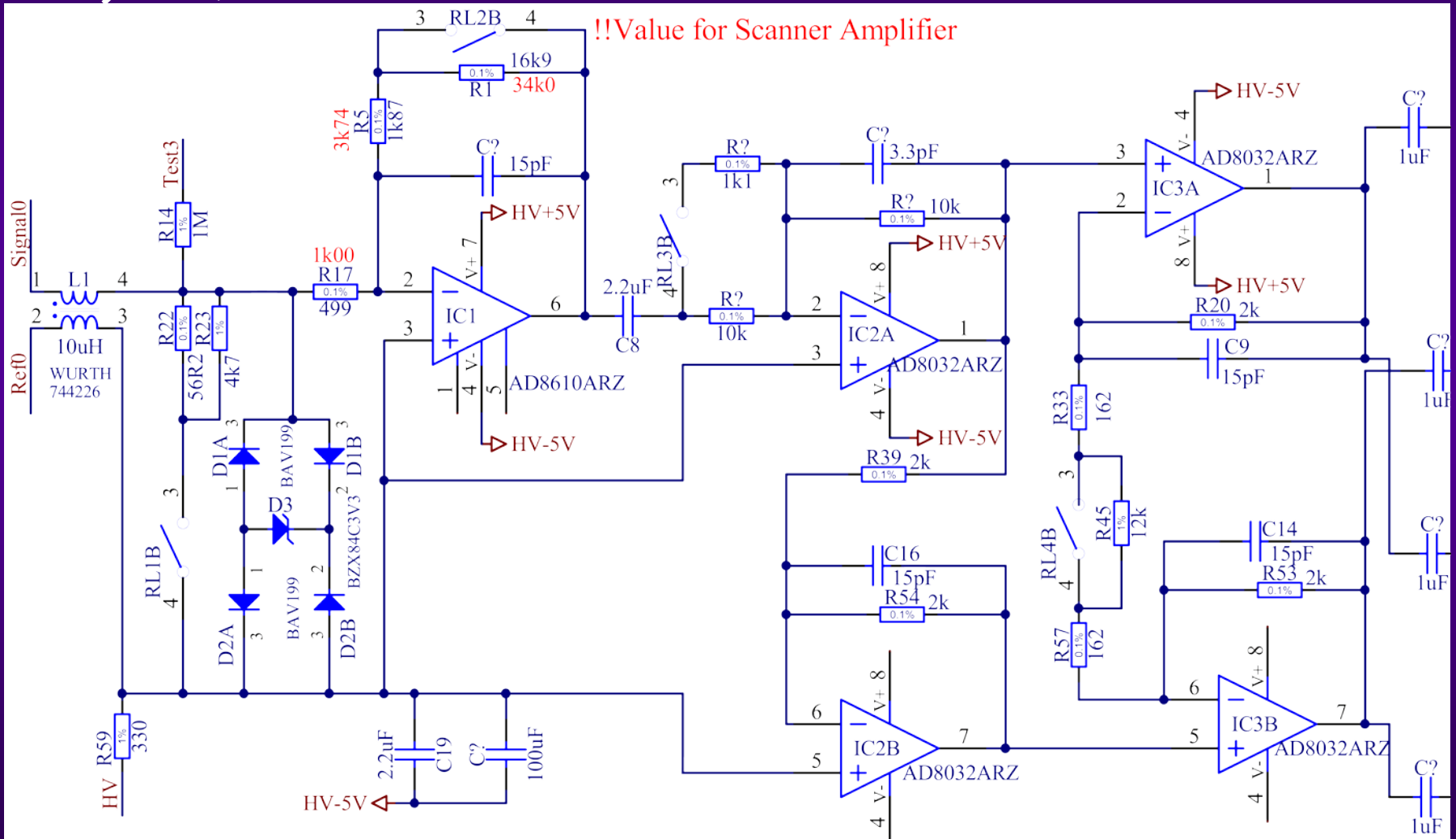


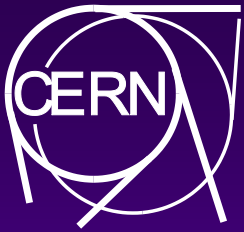
# Amplifiers



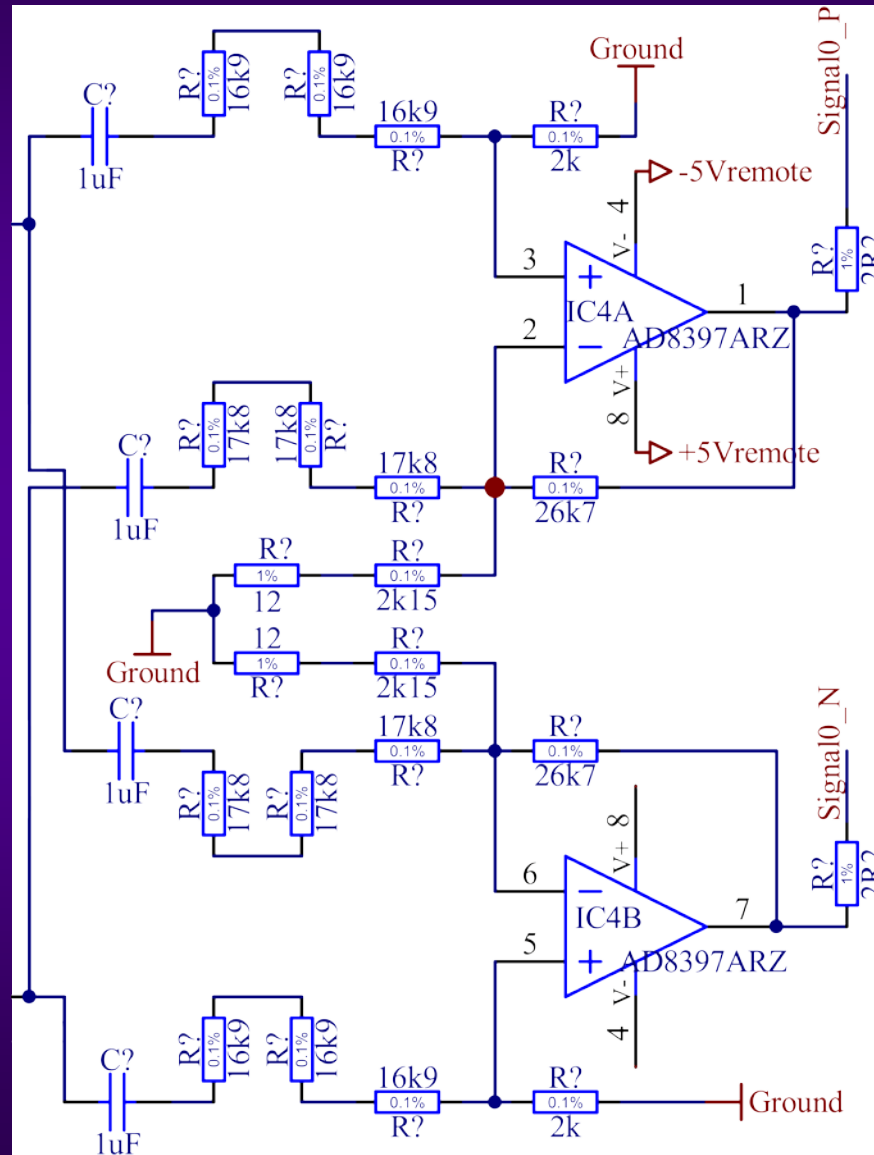


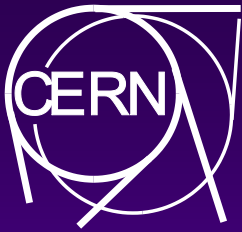
# Linac4 Amplifier (1)





# Linac4 Amplifier (2).





# Test measurements.

- ◆ We bring a test setup:
  - ◆ Prepared amplifier board with some connections to be connected to an oscilloscope,
  - ◆ A “motherboard” to connect the amplifier board to, and which will allow to connect the amplifier board to standard control equipment. (long cable possible)
  - ◆ Control equipment:
    - ◆ A special chassis with a Control Card,
    - ◆ A PC that connects to the Control Card via RS422.
- ◆ The whole test can be done with this material, the system has an integrated test-signal provided.
- ◆ Additional equipment:
  - ◆ An oscilloscope to connect to some internal signals (distance?),
  - ◆ We may consider an external signal generator.