

USM Update

Alam Toro

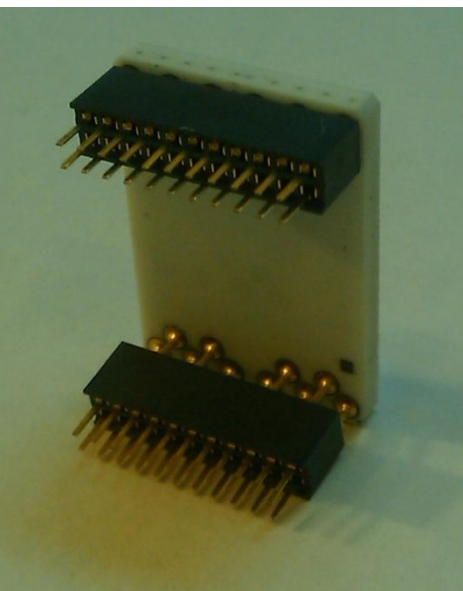
May 31, 2011

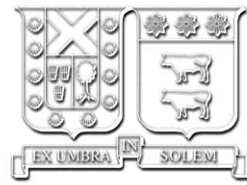
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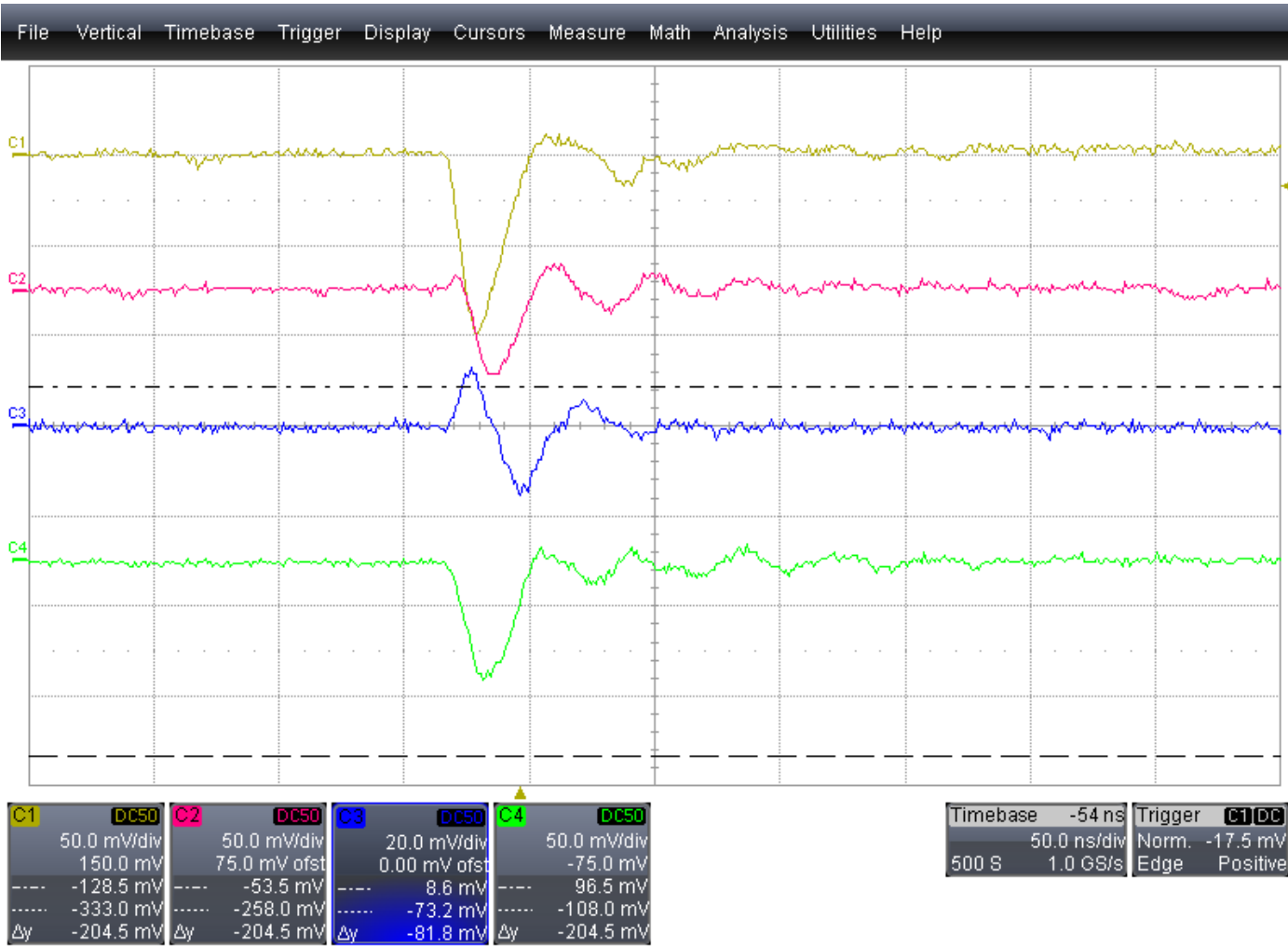
MPPC

- MPPC arrived. It work and help us in the design of amplifiers and preparing the VME QDC.



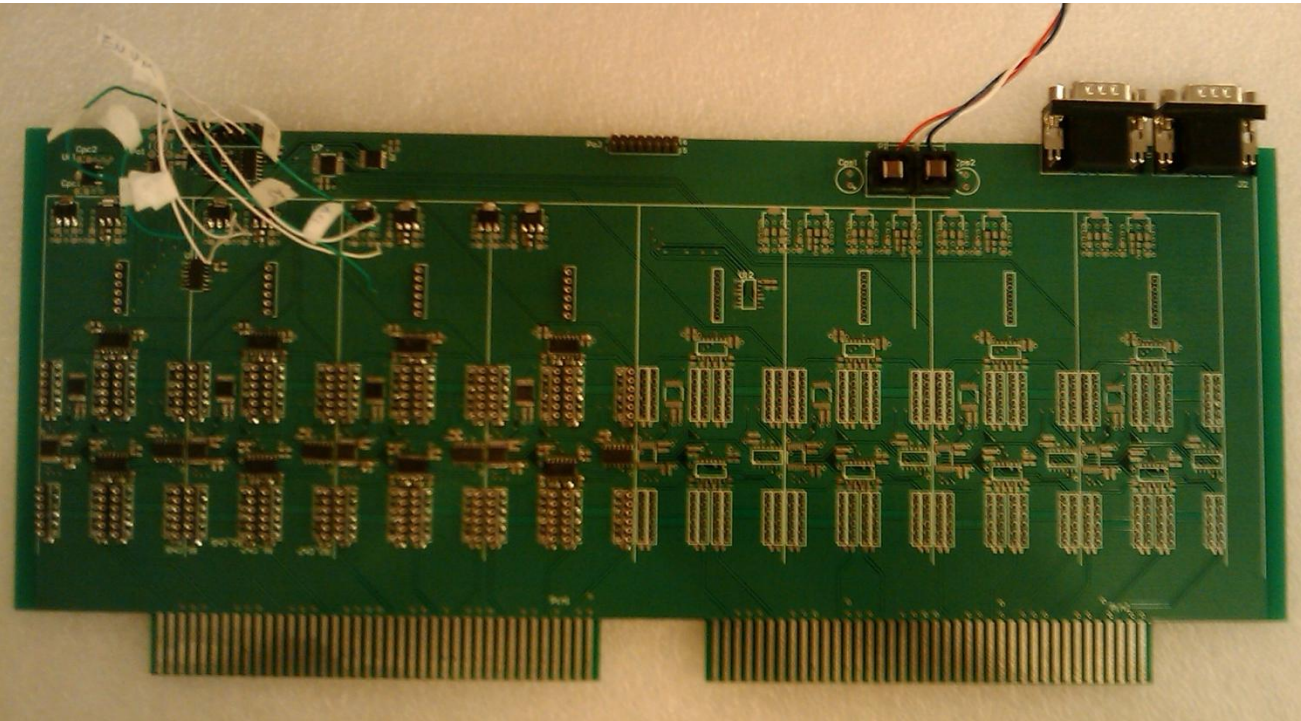


Amplifiers Test



Using the MPPC, signals were injected into amplifiers and the output was been studied in order to set some parameters of it, this are matching output impedance and amplification (feedback resistor)

Big-Board

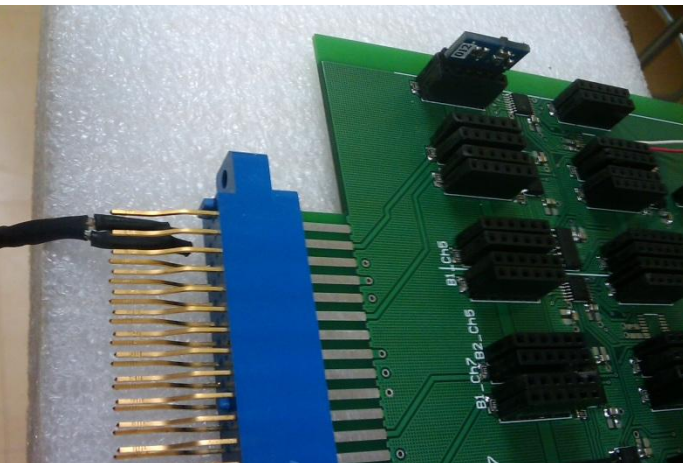


- A half of board mounted for initial test.
- A first “static” test with 1 amplifier and 1 input, reached with success.
- A logic test already performed and reached with success.

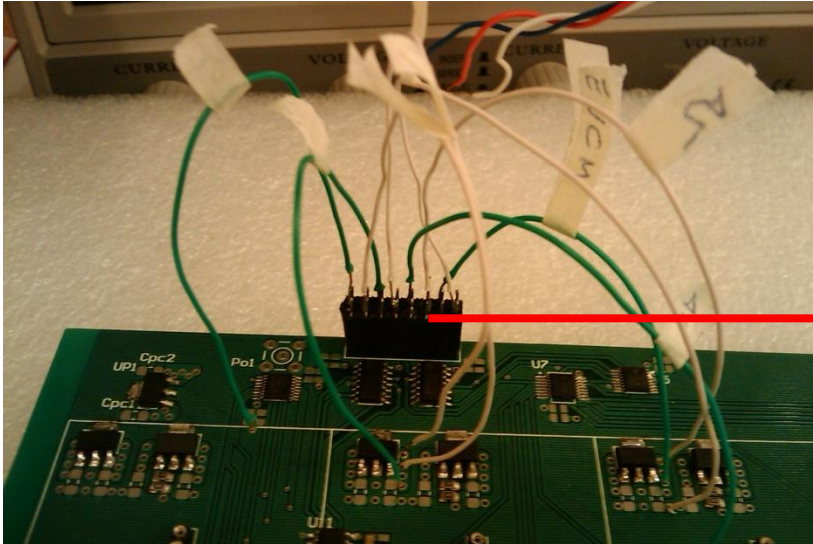
Static Test



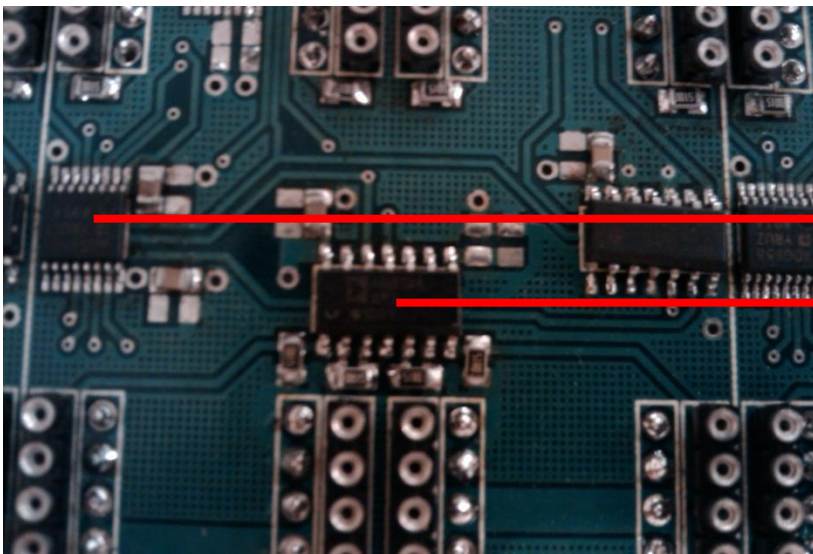
- Initial test in which a sinusoidal signal was injected in a single input, passing through one amplifier and was detected in the output amplifier place.
- Not all components were available at the moment of the test (actually all available).



Big-Board and Static Test



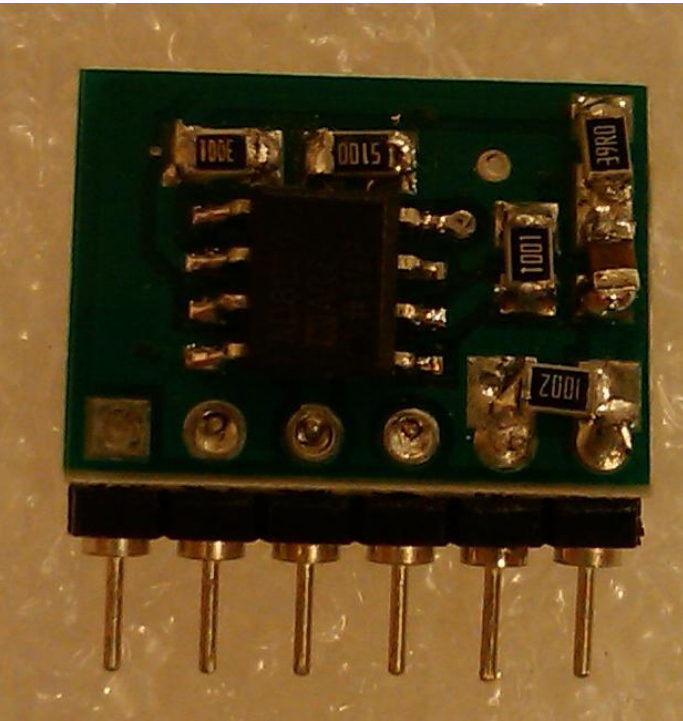
Simulated Control Port:
for static test



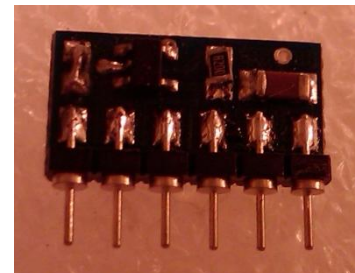
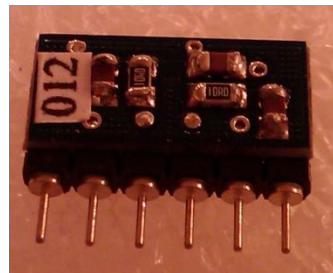
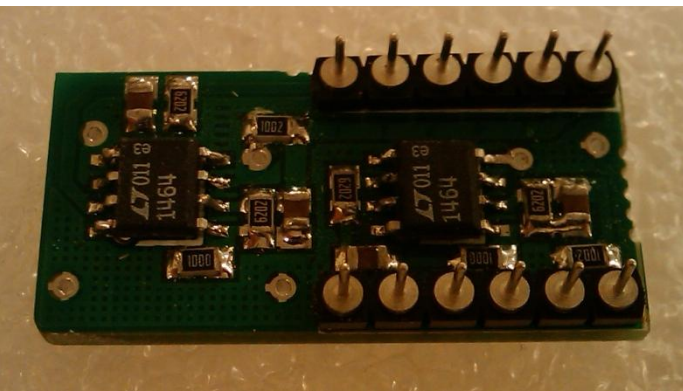
ADG658 multiplexer

AD8184 multiplexer

Still in progress: Complete Test



- 4 Output Amplifier mounted for initial test (individual test under progress)
- 4 Current Sensor mounted and 12 in progress (individual test under progress)
- 16 Fast Amplifier mounted. Some items under evaluation (output impedance and gain).

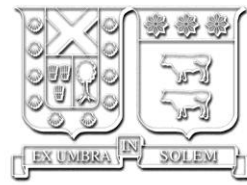


Dark Box



- The Dark Box is under cooling testing, looking for condensation and temperature stabilization.
- The room have its own air conditioning in order to establish certain conditions.



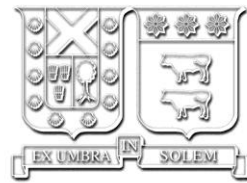


Rooms and Air Conditioning



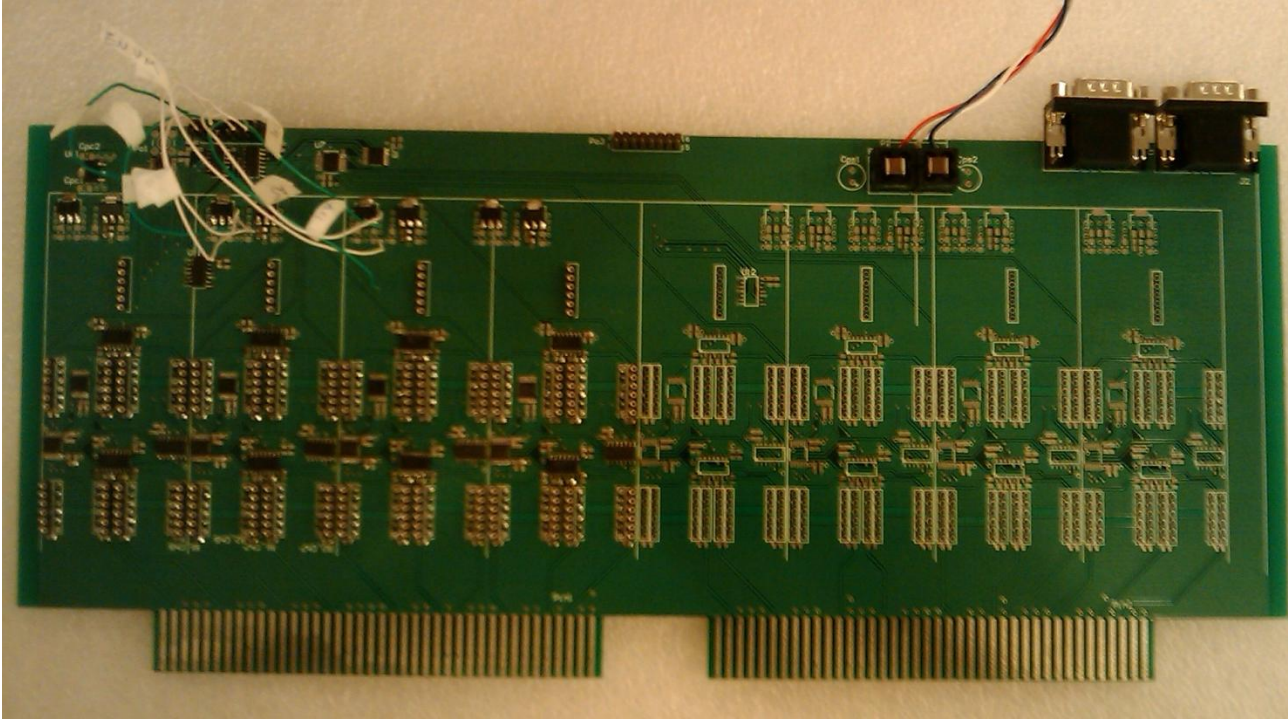
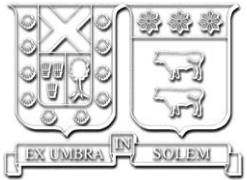
- Two rooms with Air Conditioning Systems of 12000 BTU each one.
- The first, cooling our mini-cluster
- The second drying the room of the setup.
- And between them, a flux of warmer and drier air to the setup room, using the first room like a buffer.





In Future

- Finalize the assembly of boards.
- Complete individual board test and complete test
- Assembly Control Board and test it.
- Mount MPPC's plate in Dark-Box for complete test



END