

16 Electronics

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In the report period 1999/2000 we were mostly occupied with the following projects:

H1: for the upgrade of the large multiwire proportional chamber we produced blueprints for the HV- and READ-OUT prints and contacted a manufacturer. We experienced serious difficulties due to the unusually small distances between the signal lines (80-100 μm) of the twenty different printed circuit foils (see Sec. 7).

HERA-B: in summer 1999, we further developed and built a 6-channel offset amplifier as an additional option for the current monitoring system used in the tests of micro-strip-gas-chambers (MSGC's) at PSI Villigen (see Sec. 8).

ATHENA: a multifold analog buffer amplifier system with 36 channels is being constructed. Each channel accepts differential input signals from the silicon detector modules for an energy and topology determination. The buffer amplifiers have a fixed gain and deliver output signals to the ADC's through 50 Ω Lemo cables. The 36 channels will be housed in a special case situated close to the vacuum feedthroughs (see Sec. 6).

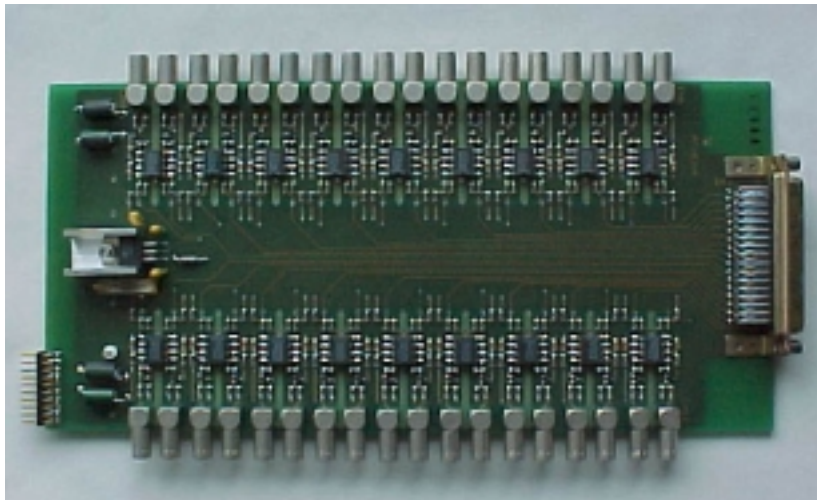


Figure 16.1: 36 - channel buffer amplifier for the ATHENA project