```
                    Preliminary End Cap Electronics Diagram  (4/94)
                 ----------------------------------------------------
                                                                 res   full sc
                                                 17mV,18.5pC    ------ -------
          20mV  ---------------------------------------------CCD  8ch   30MeV
          20pC |
------|*10>----|    Splitter
               |     -----  filter                 5mV,5pC
               |    | 80% |-----------------------------------ADC 20ch  102MeV
                ----|     |
                    | 20% |--
                     -----   |   ---  filter      1mV,0.9pC
                             --|     |-------------------------ADC  4ch  550MeV
                               |     |           3.3mV,3.4pC
                            ---|Fan  |-------------------------CCD  2ch  152MeV
                               |I/O  |    ---      ---
                            ---|     |---|Dis|----|OR |---self trigger
                               |4in  |   |   |-    ---
                            ---|     |    ---  |
                               |     |--  4MeV  --------------TDC
                                ----   |          ---    ---     ---    Ku2
                                        ----- --|Sum|--|Sum|---|Dis|--
                                                 ---    ---     ---    Esum

Assume CCD full scale of 0.512V (res=2mV). ADC full scale is 512pC(res=0.25pc).
The amplifier saturates at 2.0-4.0V depending on gain. For gain(x10) saturation
is at 3-3.5V (We will assume 3.5V).

Amp output          15mV/MeV               20mV/MeV               25mV/MeV
             saturation resolution  saturation resolution  saturation resolution
-------------------------------------------------------------------------------
   Amp-out     233MeV      -          175MeV       -          140MeV       -
   CCD          39MeV    6.4ch/MeV     30MeV    8.6ch/MeV     24MeV   10.7ch/MeV
   ADC         135MeV   15.1ch/MeV    102MeV   20.1ch/MeV     81MeV   25.2ch/MeV
hi-CCD         208MeV    1.2ch/MeV    152MeV    1.6ch/MeV    125MeV    2.1ch/MeV
hi-ADC*        341MeV    6.0ch/MeV    256MeV    8.0ch/MeV    205MeV   10.0ch/MeV
hi-ADC+filter  735MeV    2.8ch/MeV    550MeV    3.7ch/MeV    441MeV    4.6ch/MeV
===============================================================================
===============================================================================

                     End Cap Electronics Diagram (12/18/94)
                 ----------------------------------------------
                                                                 res   full sc
                                                                ------ -------
          15mV  ---------------------------------------------CCD
          15pC |
------|*10>----|    Splitter
               |     -----  filter
               |    | 75% |-----------------------------------ADC
                ----|     |          ----TDC
                    |     |        |   ---     ----- L0 Veto
                    | 15% |-----CFD----|OR |---|
                    |     |             ---     ----- YAlO trigger
                    | 10% |--
                     -----   |   ---  filter
                             --|     |-------------------------ADC
                               |     |
                            ---|Fan  |-------------------------CCD
                               |I/O  |
                            ---|     |
                               |4in  |          ---    ---     ---    Ku2
                            ---|     |   ----- --|Sum|--|Sum|---|Dis|--
                               |     |            ---    ---     ---    Esum
                                ----

CCD full scale of 0.300V (res=1mV/ct). ADC full scale is 512pC(res=0.25pc).
The amplifier saturates at 3.0-4.0V.
```