Ethernet Daughterboard

Status Report

E. Hazen, E. Kearns, J. Raaf, S.X. Wu

*Boston University*
Trip to Kashiwa

• Very successful!

• Most goals accomplished:
  – Initial connection with DB ok
  – Single action TKO working (after firmware fix)
  – Enhanced high-speed mode for TKO working
    • Implemented with quick firmware work by Iwatsu and Mr Wu to a new spec
  – TCP readout working
    • Much testing still to be done

Eric Hazen
Kashiwa Trip

• Lessons learned:
  – Collaborative design can work well
  – Even carefully-written specs can be mis-interpreted (i.e. TKO timing diagram)
  – Much work can be done in one week if all the required experts are available
  – ...looking forward to continued successes!
Current Tasks

- Detailed specification for SDS readout
  - Preliminary version written; comments taken from Shiozawa-san and Wu-san
  - New version to come shortly.
- Production underway of (5) additional DB using spare PCBs... due early October
- Production about to start of (30) additional testers... due mid-November
DB Design Changes

- Ethernet transformer changed (availability)
- SDRAM changed (power, layout)
- Add one extra switch for address
- Change package on SSN device
- Should add a few more reserved signals on connection to ATM
Current Tasks (more)

- Layout changes underway for DB next version. Some parts no longer available forcing layout changes. Expect to have layout ready this week.
  - Expect delivery of (30) boards late November

- Next steps:
  - Assemble DAQ test setup with 10 DB
  - Write firmware to generate random data, triggers
  - Test DAQ performance