Status of HyCal

Chao Peng, Duke University
Li Ye, Mississippi State University
11/14/2014

Electronics

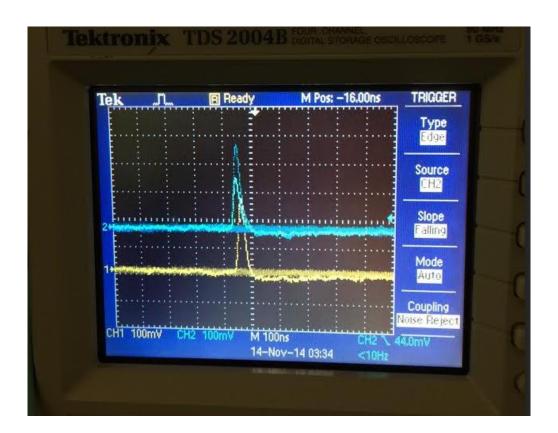
- 2 HV modules (A1932AN) and 13 UVA 120A analog summing modules were found.
 - 2 UVA 120A were brought into the hall and used for summing the signals from trigger groups
 - The problematic HV module (G900, channel 31 under voltage) was replaced.
- However, the 2 HV modules are both problematic
 - One has an interlock problem, it is constantly "external-disabled"
 - The other one has under voltage problem on channel 9
 - These two were sent to Mark Taylor for repair.
 - The original one (G900, channel 31) was kept for temporary usage. (And it might need a radiation survey to be taken out)

Trigger for cosmic ray

The plot shows the summed signal for cosmic ray

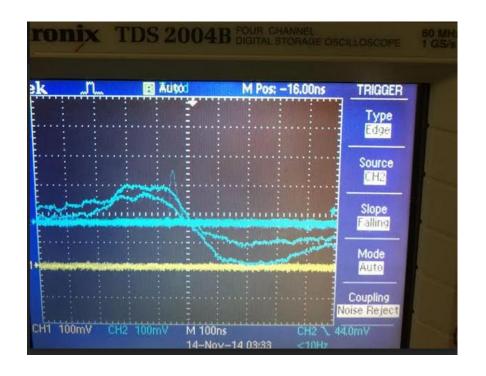
Blue: Lead glass groups

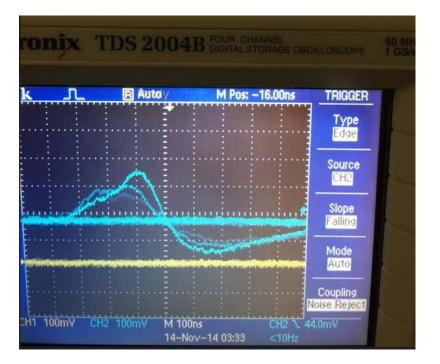
• Yellow: Crystal groups



Trigger for cosmic ray

- However, sometimes there are very bad shape signals
- It is not understood yet





Trigger for cosmic ray

- The rising slope of this bad shape signal can be 100 ~ 200 ns
- Thus the delay of the trigger after discriminator can vary more than 100 ns depends on the value we set.
- May not good enough for trigger, need to find out what is the problem

