

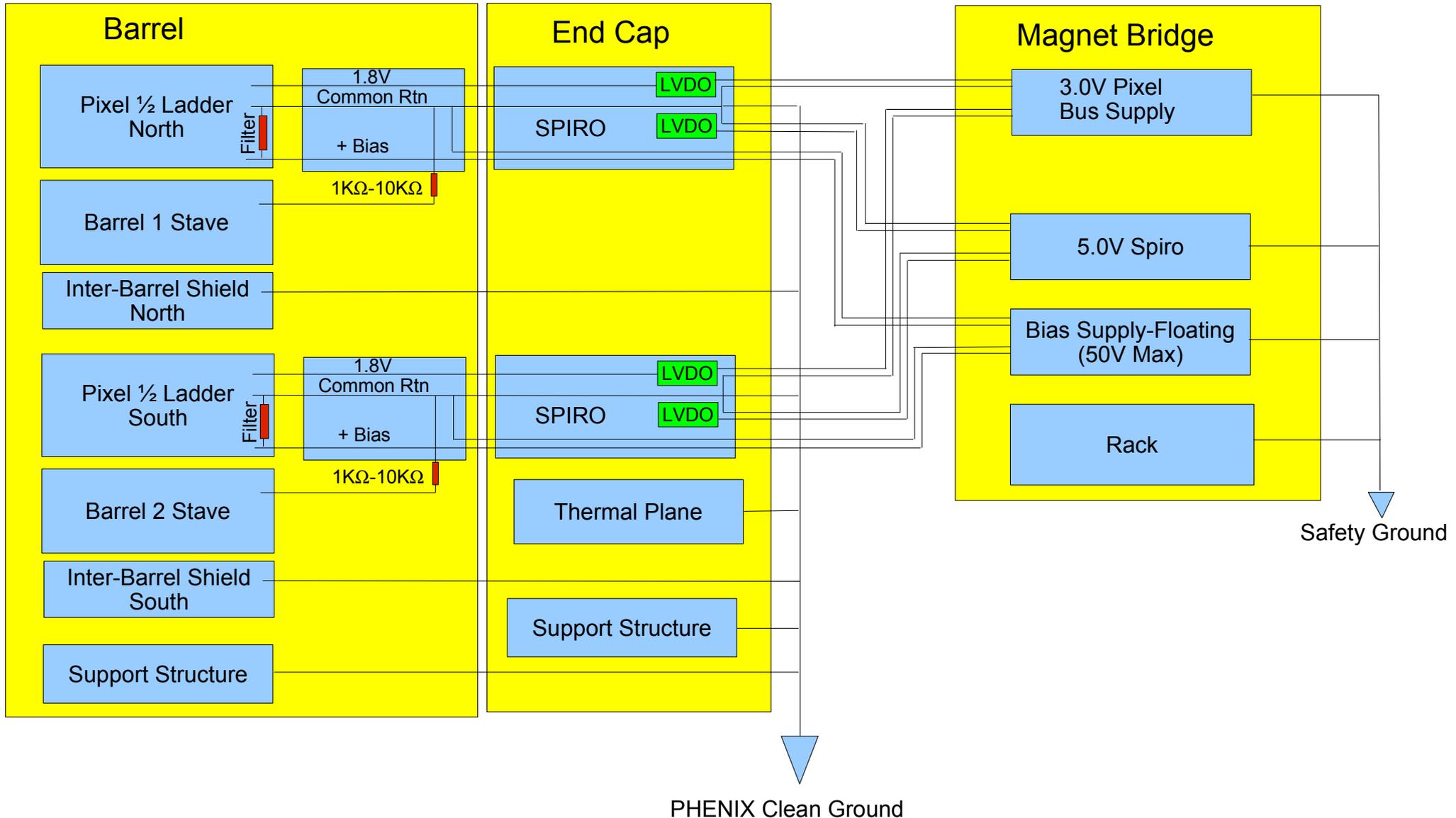
VTX Electronics Integration

E.J.Mannel
VTX Monthly Meeting
May 6, 2008

Ground Plan

- Reviewing Current ground plan
 - Discussion with Dave Lynn, C. Pancake about grounding.
 - Ground one end of the stave to one $\frac{1}{2}$ ladder.
 - Barrel 1 to north $\frac{1}{2}$ ladder, Barrel 2 to south $\frac{1}{2}$ ladder.
 - Provide for a shield option between barrels 2 and 3.
 - Aluminized mylar connected to clean ground
 - Filter cap grounds on $\frac{1}{2}$ ladder need to be tied to ground on $\frac{1}{2}$ ladder.

Pixel Grounding Plan



Ground Plan

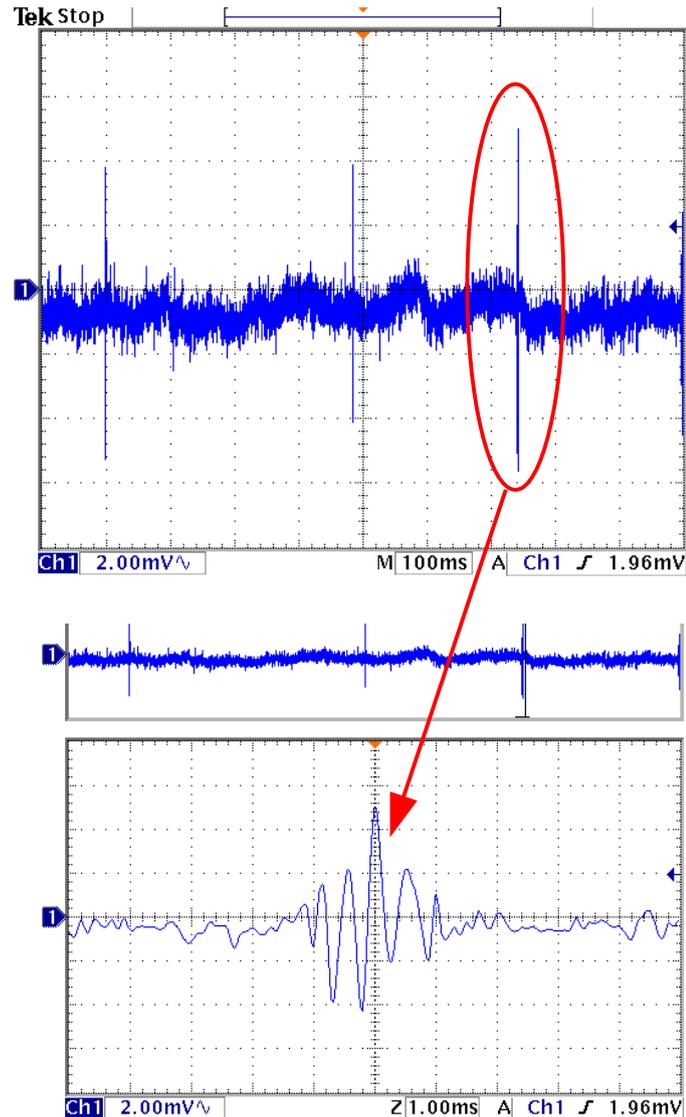
- Outstanding Issues:
 - Need to correct filter cap ground on pixel bus
 - Is the ground wire for the bias connector between extender and bus required?
 - Need ground connection points on the extender for stave ground
 - Is there plans for a common clean ground point in the enclosure?
 - Project calls for a PHENIX review, who does this?

Bias Supply

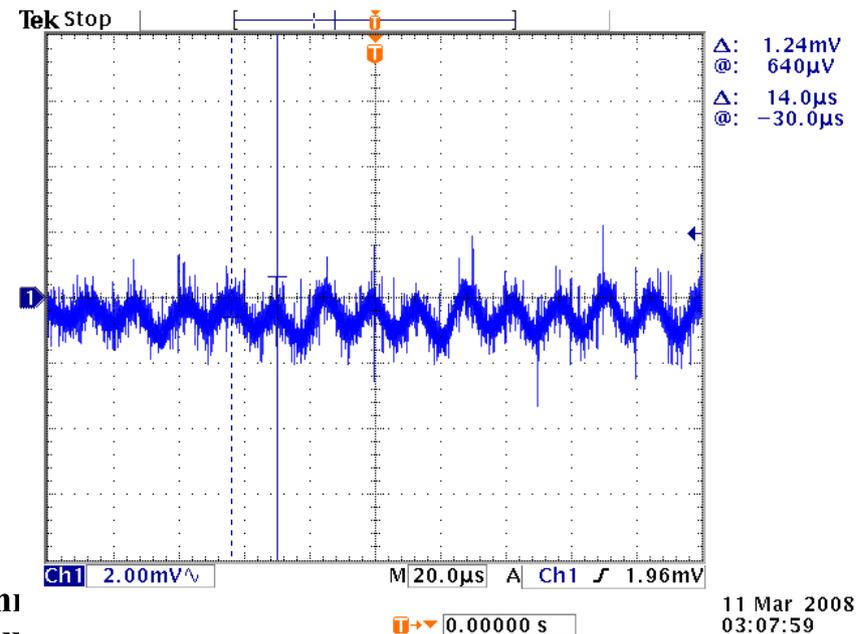
- Wiener evaluation system being returned May 19
- Work done by Chuck indicates less noise than the CAEN system
- Martin thinks that it should be easy to implement Wiener system into current PHENIX OPC server.
- Will request quote for pixel system bias supplies from Wiener

Wiener/ISEG Noise Measurement

March 2008-C. Pancake



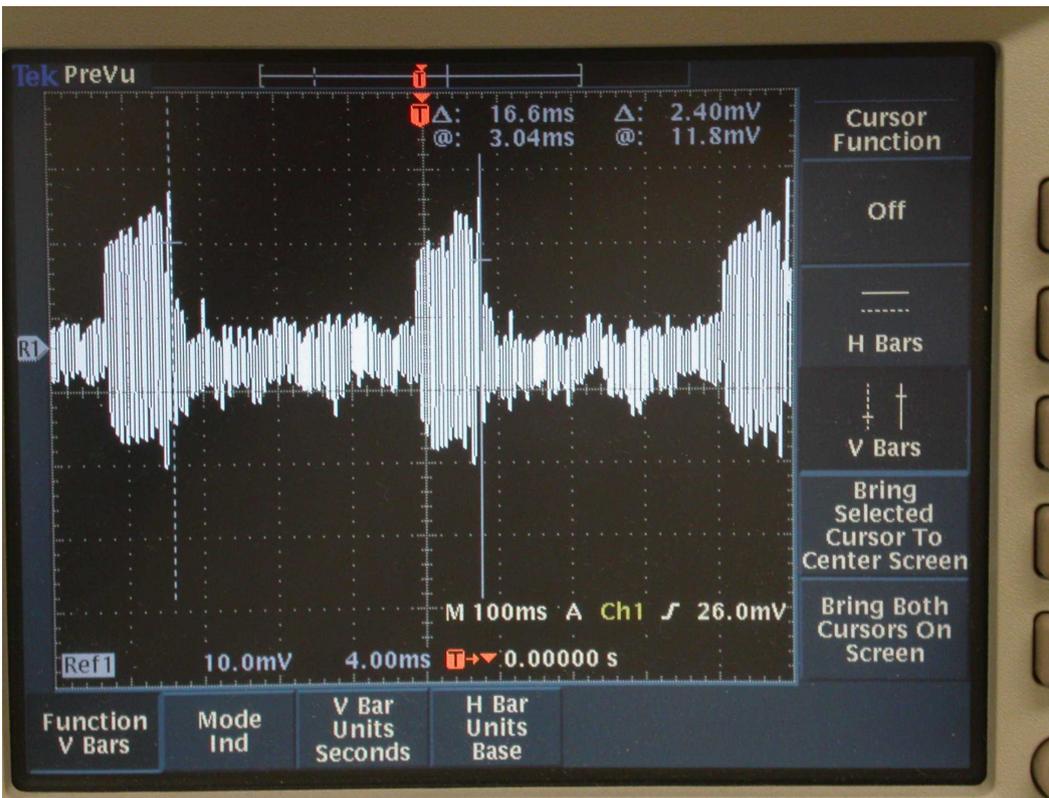
- 50V output
- Low frequency noise, random spikes (2mV p-p)
- High frequency noise, ~70KHz (10mV p-p)



CAEN Noise Measurement

Sept 2007- A. Takatani

- 50V voltage setting
- 4msec/div, 10mV/div
 - 60Hz noise (40mV p-p)
 - 40Khz high frequency (10mV p-p)



Power Supplies

- Still evaluating options.
- New PHENIX standard
 - Pros
 - Known interface
 - High channel count/power density
 - Long term maintenance by PHENIX
 - Lower cost
 - Cons
 - Common return between multiple channels
 - Fixed common voltage
 - Still needs design work

Other Issues

- Rumor that the bridge racks may now be standard height. Will follow up on this with PHENIX integration group.
- Still need to setup a PHENIX Pixel Safety review.
- Stripixel - Pixel system test.