SVD parallel meeting,
Nov. 15, 2001

VA1, VA1TA testing for single event effects - status

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Briefly review report for the Oct 18 meeting

New:

- VA1 scans over full length - along a few channels
- VA1TA read-out set up
- first VA1TA scan
- next steps

Scanning the VA1 chip

Single event latch-ups (SELU): expect a dramatic increase in bias currents, which would persist after the laser is removed.

Scan over several regions of the chip surface, measure through VADAQ all bias currents and the supply currents as a function of the laser spot coordinate.

Scanning the VA1TA chip

VA1TA was mounted on the test bench last Wednesday.

VADAQ was converted from VA1 to VA1TA operation.

Read worked OK. With the def file we got from Ideas, the signal did not look as nice as in the VA1 case - not an issue in SEU testing.

Focus search was performed.

First scan was carried out in the last two days.

Next step with the same set-up: include monitoring of corrected SEU errors.

Next steps

Move 2d table, and the VADAQ PC to the high power laser in the solid state lab.

Repeat the scans of VA1_prime2, VA1TA, scan VA1.

Vary laser pulse energy.

Evaluate the results by comparing SEE rates as measured on the test bench (for VA1) to the rate observed at Belle. Extrapolate VA1TA results to Belle environment.