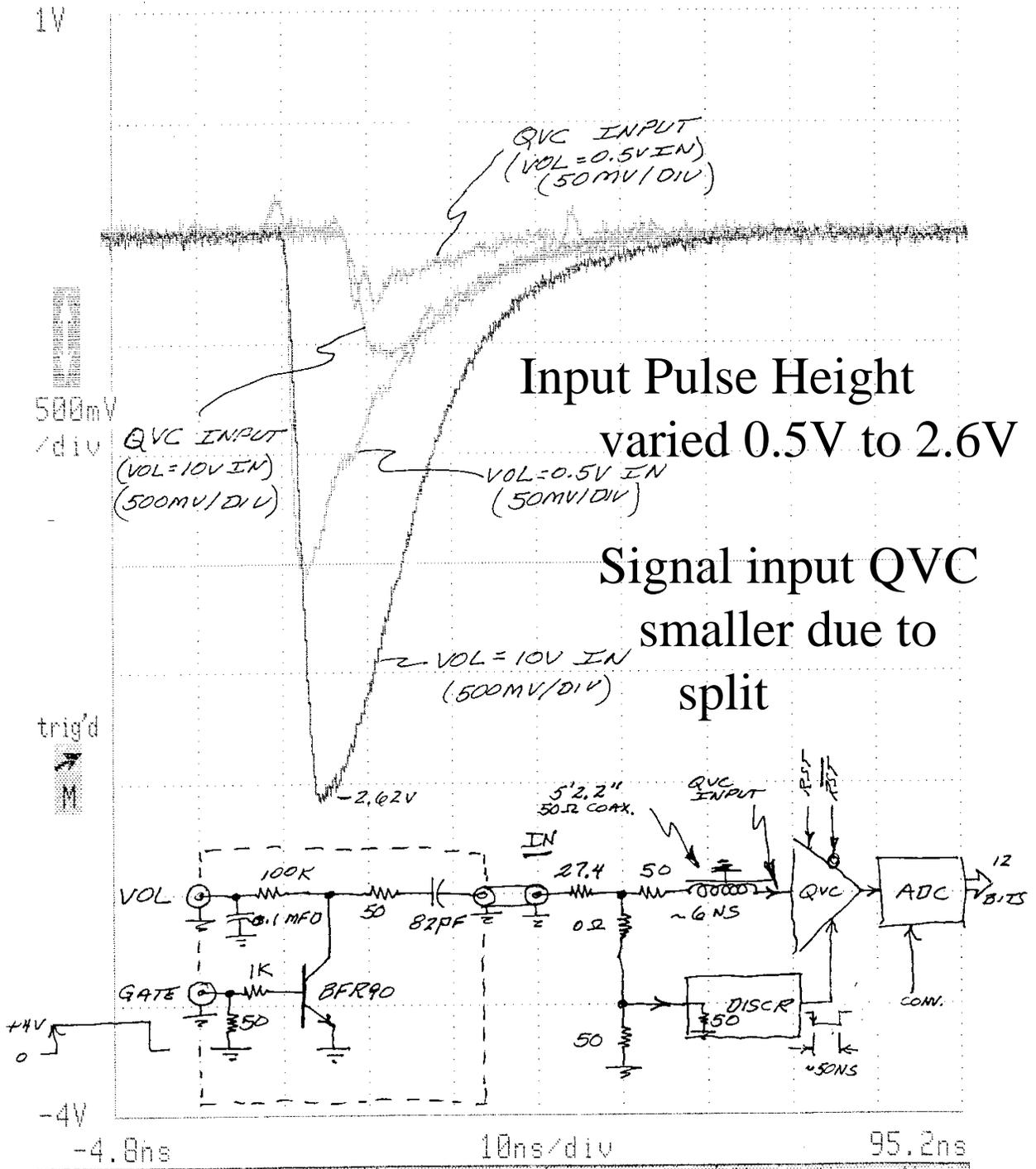


March 11, 1999 - ZDC input pulse test with BB electronics

Herb Cunitz, Cheng-Yi Chi, JN

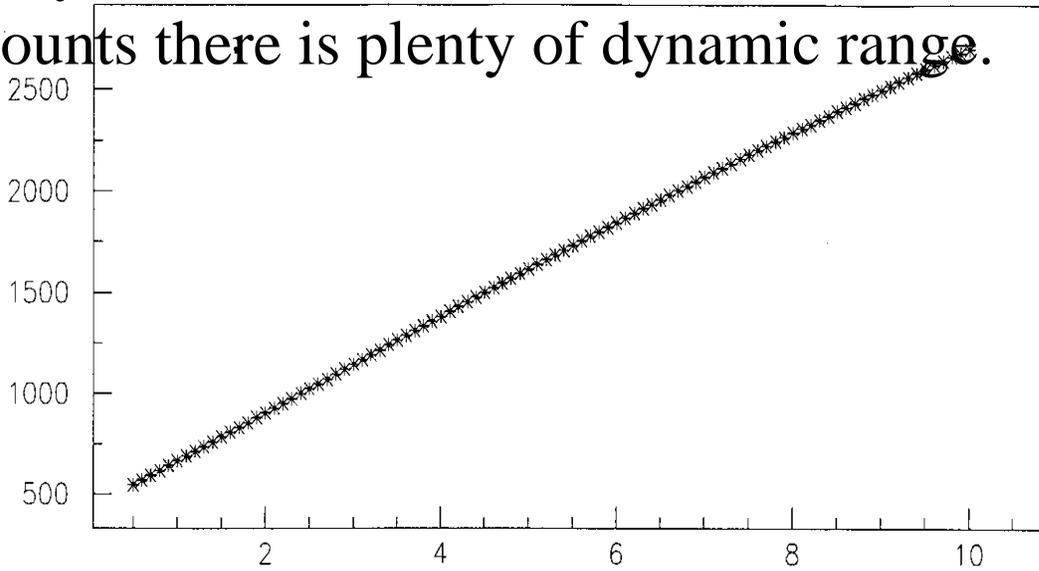


External Charge Injector

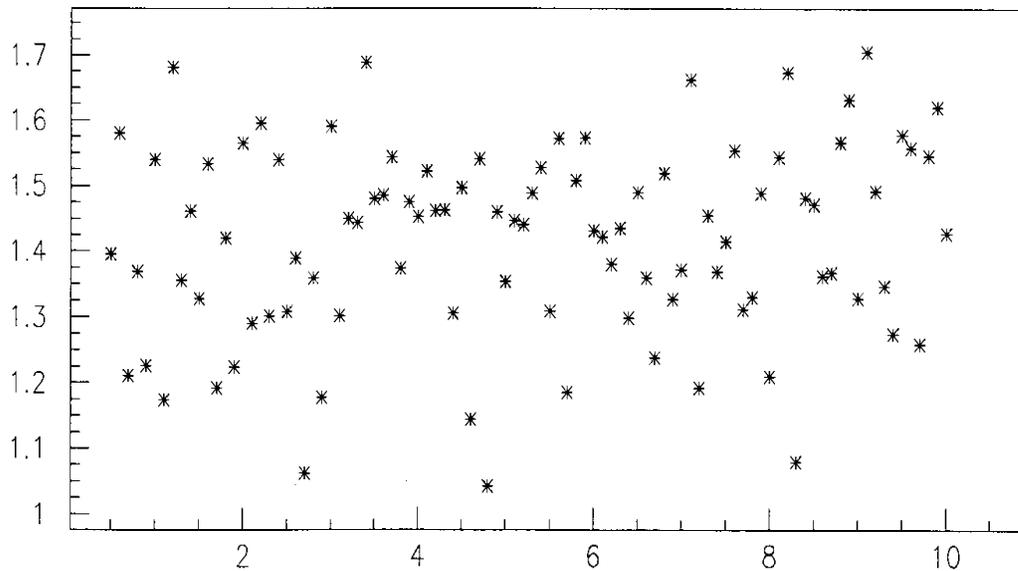
Rise	Fall	Peak-Peak	Measurements	Vert Mag: Wfm
20.45	2.545	2.62000		500mV
				Vert Pos: Wfm

Upper plot shows linearity of ADC counts (y axis) versus input pulse voltage (x axis)

Lower plot shows the RMS in ADC counts (y axis) versus input pulse voltage (x axis). There is very low intrinsic noise. With 4000 ADC counts there is plenty of dynamic range.

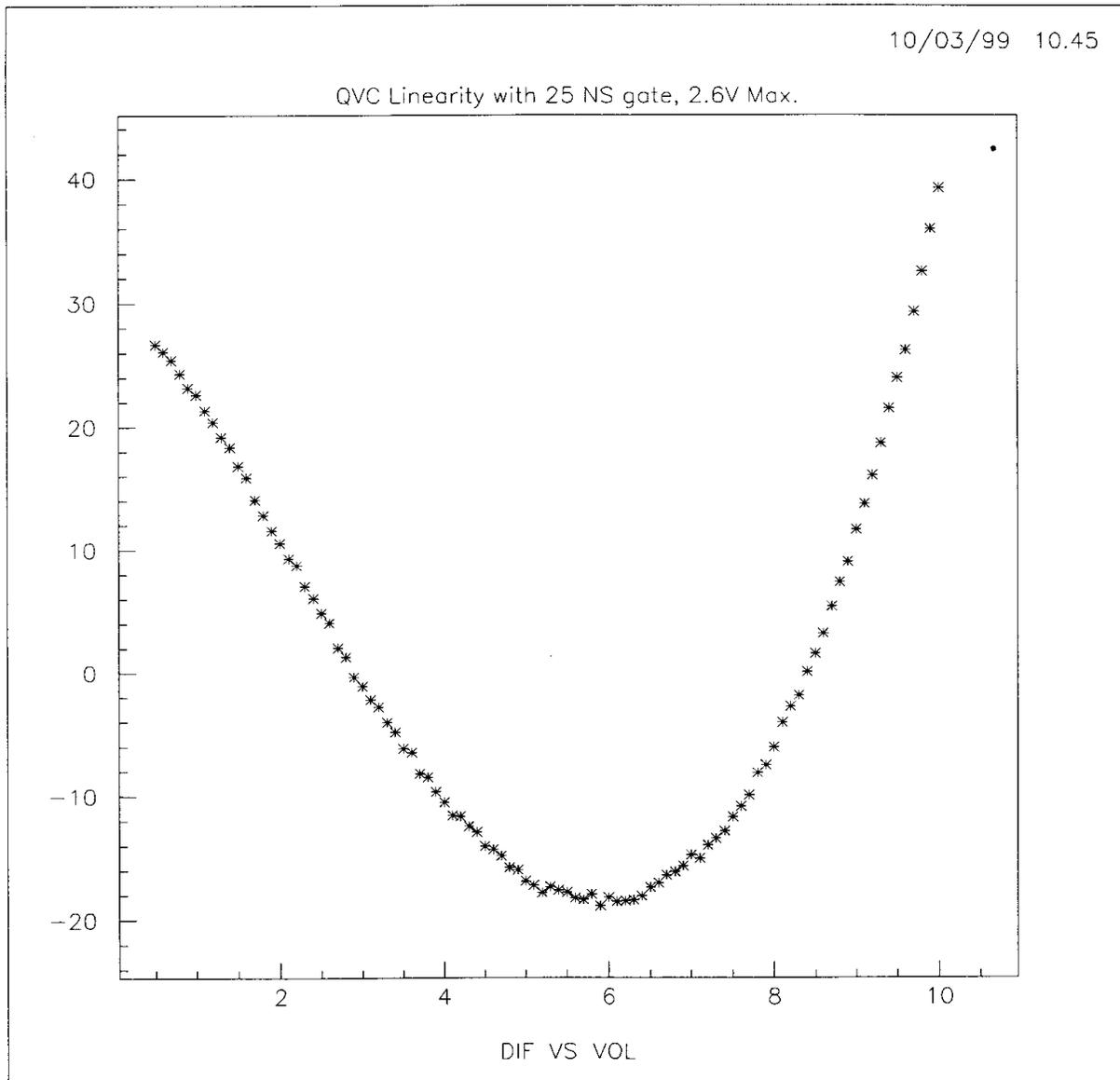


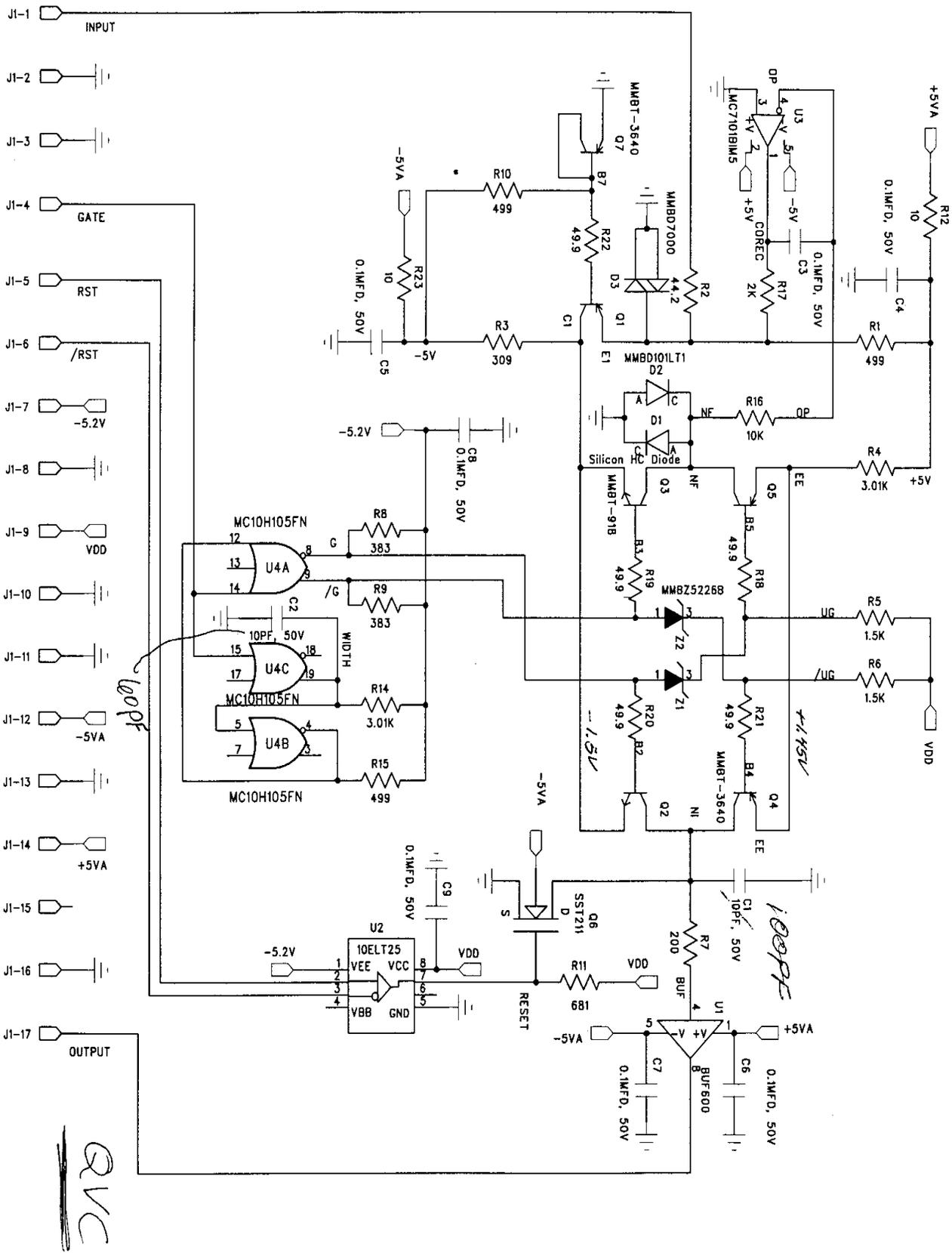
AVG VS VOL

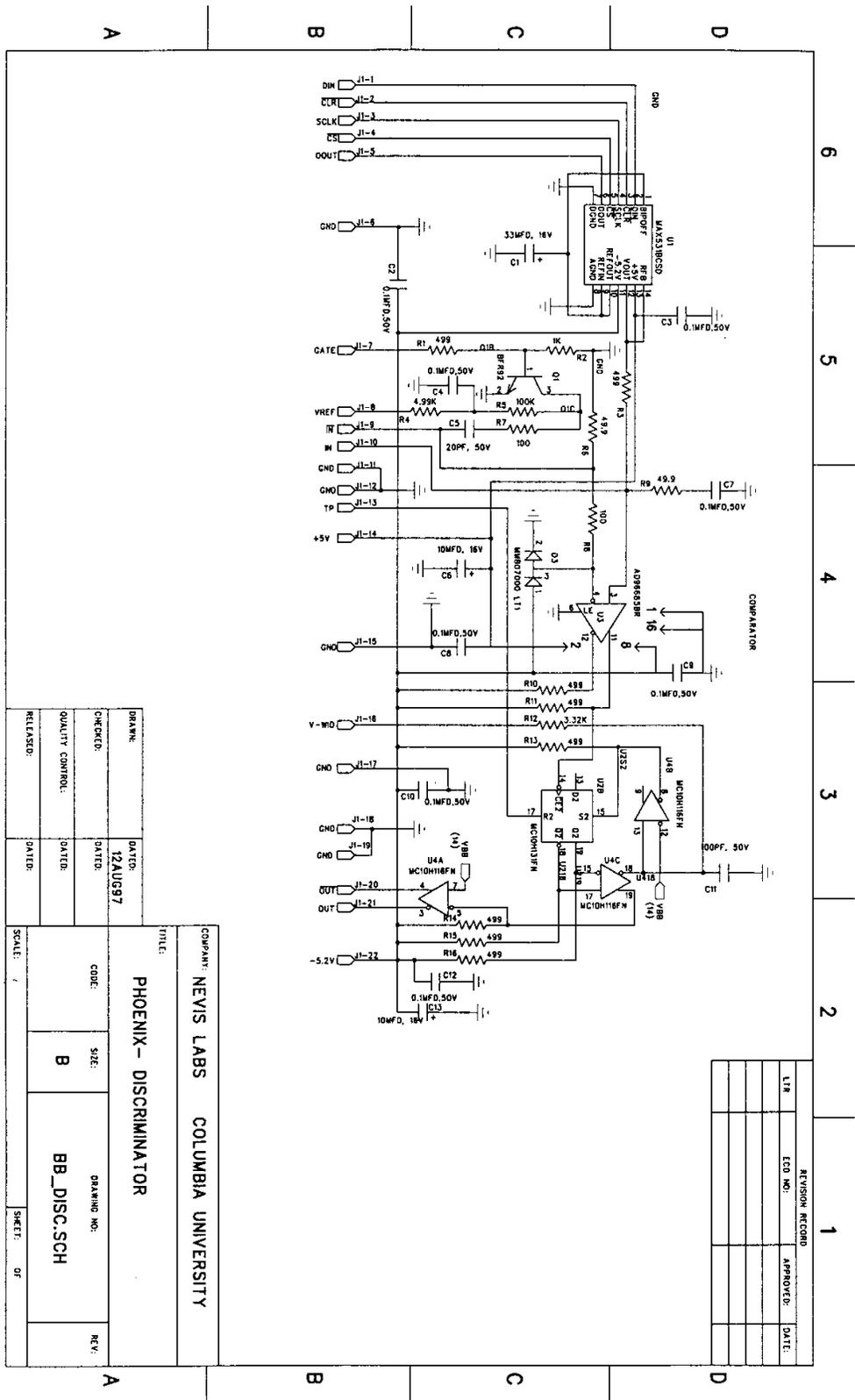


SIG VS VOL

The linearity of the QVC is not perfect. The below plot shows the deviation from a linear fit (on the previous page) versus input voltage. There is a 30-40 ADC channel deviation. This will need to be corrected out. ? With LED or laser pulses or some characterization of each channel before hand.







REVISION RECORD		
LT#	ECO NO.	APPROVER

DRAWN:	DATE:
CHECKED:	12AUG97
QUALITY CONTROL:	DATE:
RELEASED:	DATE:

COMPANY: NEVIS LABS COLUMBIA UNIVERSITY	
TITLE: PHOENIX - DISCRIMINATOR	
CODE:	DRAWING NO:
B	BB_DISC.SCH
SCALE:	SHEET: OF