

TKR ASIC Review Questions/Action Items

- Spieler: Comparator kick-back “Distortion of S-curves at low signal levels”
 Virmani: Yield on ASIC on the outside of wafer
 Spieler: Do many channel pulsing with ladder
 Spieler: More Fibbing (\$300/ASIC), maybe on good ones?
 Spieler: extract noise slopes from occupancy (see below)
 Redo threshold scans in reverse order
 Do occupancy with full DAQ, instead just the trigger OR
 3 trays both, 2 one side equipped middle of January from INFN
 Spieler: Clock requirements? Lower clock frequency
 All: yield, schedule, run options of GTFE and GTFC
 Hartmut: TKR ASICs are not on the approved parts list,
 Is there a difference to status of the CAL ASICs?
 All: What are the procurement requirements (needed docs etc)?

I took the noise occupancy data Robert showed and calculated the noise sigmas from the slope of the curves. The average for F is 1580e, for G is 1475e. On the other hand the S curves give very different numbers for F (about 2000).

Q1	Q2	n1	n2		Noise sigma			
1.3	0.75	1.00E+05	10	2.47E-01	1.53E+03	Average	Noise For G	
1.36	0.57	1.00E+06	1	2.35E-01	1.45E+03	F22		
1.58	0.62	1.00E+06	1	2.76E-01	1.71E+03	F21		
1.47	0.59	1.00E+06	1	2.56E-01	1.58E+03	F3	1579	
1.46	0.72	1.00E+06	1	2.42E-01	1.49E+03	G2, G0		
1.39	0.65	1.00E+06	1	2.34E-01	1.44E+03	G1	1475	