SQUID Tuning Summary

HWMap Name: PB2 HWM

HWMap Path
/home/polarbear/hardware_maps/polarbear/PB2b/commissioning/202305_crate_test/crate_hwm_202310_shift_disable_bad_sq.yaml

Date: Thu Jun 6 18:05:18 2024

125 squids successfully tuned, 23 squids failed to tune

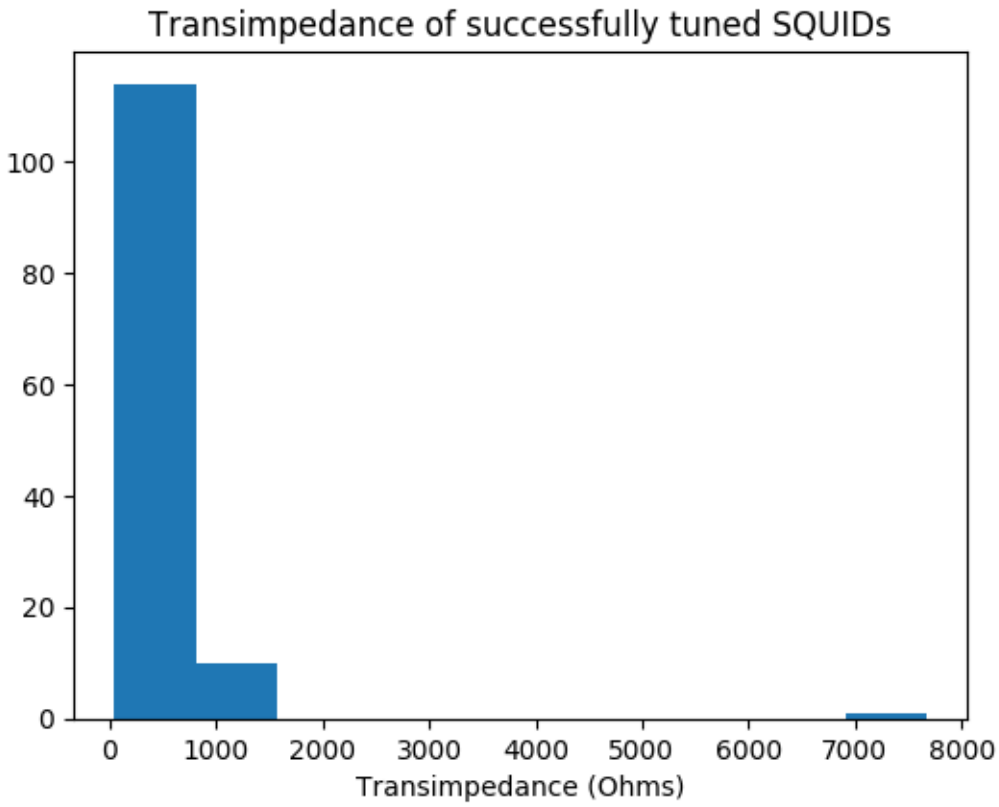
Successful Tunings

SqID	Current Bias (V_DAC)	Current Bias (uA)	Achieved Vpp (V_DAC)	Vpp (mV)	Measured Z_sq (Ohms)
Correct.1	0.92	45.87	0.37	4.95	723
Correct.2	0.91	45.52	0.38	4.98	749
Correct.3	0.92	46.24	0.37	4.84	734
Correct.4	0.90	44.87	0.37	4.83	755
Correct.5	0.93	46.98	0.37	4.84	723
Correct.6	0.92	46.01	0.35	4.65	628
Correct.7	0.90	44.63	0.35	4.65	666
Correct.8	0.92	45.92	0.35	4.64	697
Correct.2	0.88	42.74	0.38	4.99	781
Correct.3	0.92	46.01	0.37	4.94	710
Correct.4	0.92	45.88	0.38	4.97	687
Correct.1	0.88	43.26	0.37	4.86	737
Correct.2	0.91	45.60	0.40	5.34	822
Correct.3	0.92	46.40	0.37	4.87	762
Correct.4	0.93	47.31	0.37	4.87	733
Correct.5	0.94	47.73	0.37	4.91	762
Correct.7	0.94	47.66	0.37	4.86	714
Correct.8	0.93	47.26	0.37	4.88	757
Correct.1	0.90	44.62	0.38	4.99	710
Correct.2	0.92	45.87	0.37	4.90	713
Correct.4	0.92	45.81	0.37	4.90	683
Correct.1	0.88	43.09	0.40	5.29	814
Correct.2	0.91	45.11	0.41	5.37	712
Correct.3	0.88	42.96	0.41	5.40	835
Correct.4	0.87	42.39	0.40	5.24	863
Correct.5	0.90	44.81	0.38	5.02	692

Correct.6	0.90	44.75	0.38	5.08	675
Correct.7	0.91	45.67	0.38	5.00	684
Correct.8	0.71	29.01	0.01	0.07	832
Correct.3	0.93	47.14	0.36	4.79	7673
Correct.4	0.93	46.81	0.36	4.82	773
Correct.5	0.92	46.46	0.36	4.78	772
Correct.6	0.92	46.54	0.37	4.89	686
Correct.7	0.90	44.69	0.36	4.75	734
Correct.8	0.92	46.09	0.35	4.59	648
Correct.1	0.91	45.06	0.36	4.71	663
Correct.2	0.88	43.15	0.36	4.75	713
Correct.3	0.92	46.10	0.36	4.76	664
Correct.4	0.90	44.31	0.37	4.87	714
Correct.5	0.92	46.54	0.40	5.23	727
Correct.6	0.90	44.48	0.41	5.39	731
Correct.7	0.92	46.09	0.37	4.87	685
Correct.8	0.92	46.23	0.37	4.83	706
Correct.1	0.95	48.40	0.37	4.96	765
Correct.2	0.93	46.69	0.37	4.83	781
Correct.3	0.91	45.23	0.01	0.09	622
Correct.4	0.92	46.37	0.36	4.74	743
Correct.5	0.93	47.04	0.37	4.96	741
Correct.6	0.92	45.98	0.39	5.20	757
Correct.8	0.85	40.53	0.01	0.14	788
Correct.1	0.92	46.44	0.37	4.86	743
Correct.2	0.92	46.43	0.37	4.95	727
Correct.3	0.81	36.94	0.19	2.53	112
Correct.4	0.93	46.85	0.34	4.52	303
Correct.5	0.93	46.86	0.38	5.04	831
Correct.6	0.93	47.05	0.32	4.25	273
Correct.7	0.92	46.55	0.38	4.97	715
Correct.8	0.92	45.95	0.35	4.63	626
Correct.1	0.92	46.07	0.37	4.90	683
Correct.3	0.94	48.01	0.32	4.27	275
Correct.4	0.94	47.74	0.37	4.91	777
Correct.6	0.93	47.13	0.36	4.81	41
Correct.7	0.93	46.93	0.36	4.83	707
Correct.8	0.93	46.59	0.36	4.76	659
Correct.1	0.87	42.38	0.38	5.02	833

Correct.2	0.91	45.39	0.41	5.42	739
Correct.3	0.92	46.08	0.40	5.28	748
Correct.4	0.92	46.00	0.38	5.04	741
Correct.5	0.81	37.51	0.01	0.13	242
Correct.6	0.92	45.96	0.38	5.05	707
Correct.7	0.88	43.04	0.38	5.04	796
Correct.8	0.91	45.50	0.37	4.95	711
Correct.1	0.92	46.39	0.36	4.74	763
Correct.2	0.93	46.59	0.36	4.79	786
Correct.3	0.87	42.05	0.01	0.11	561
Correct.4	0.93	47.32	0.36	4.73	686
Correct.5	0.92	46.48	0.36	4.80	724
Correct.6	0.92	46.29	0.35	4.68	692
Correct.8	0.92	46.31	0.34	4.56	679
Correct.1	0.91	45.76	0.38	5.06	730
Correct.2	0.89	44.16	0.38	5.04	755
Correct.3	0.88	42.72	0.37	4.91	784
Correct.4	0.89	44.14	0.38	4.98	741
Correct.1	0.87	42.52	0.35	4.63	785
Correct.2	0.89	43.46	0.36	4.79	783
Correct.3	0.87	42.12	0.34	4.49	776
Correct.4	0.81	37.19	0.02	0.27	345
Correct.5	0.92	45.91	0.36	4.80	714
Correct.7	0.77	34.13	0.01	0.12	129
Correct.8	0.90	44.53	0.35	4.66	662
Correct.1	0.82	37.81	0.02	0.21	455
Correct.2	0.91	45.29	0.31	4.07	652
Correct.3	0.81	37.17	0.02	0.25	515
Correct.4	0.92	46.30	0.28	3.73	665
Correct.5	0.90	44.96	0.24	3.17	465
Correct.6	0.90	44.90	0.24	3.20	604
Correct.7	0.87	42.41	0.20	2.65	640
Correct.8	0.92	46.24	0.21	2.83	157
Correct.1	0.91	45.68	0.34	4.49	722
Correct.2	0.90	44.62	0.33	4.38	653
Correct.4	0.77	33.85	0.01	0.13	135
Correct.1	0.94	47.59	0.39	5.18	758
Correct.2	0.92	45.95	0.38	5.02	761
Correct.3	0.90	44.76	0.38	5.05	758

Correct.4	0.92	46.40	0.39	5.15	830
Correct.5	0.91	45.67	0.38	5.01	737
Correct.6	0.90	44.83	0.38	5.08	719
Correct.7	0.88	43.15	0.37	4.86	836
Correct.8	0.90	44.85	0.37	4.95	724
Correct.1	0.91	45.02	0.39	5.10	789
Correct.2	0.92	46.37	0.36	4.70	771
Correct.3	0.87	42.50	0.37	4.84	761
Correct.4	0.90	44.63	0.37	4.87	814
Correct.5	0.83	38.76	0.28	3.73	511
Correct.6	0.87	42.25	0.24	3.24	700
Correct.7	0.83	38.69	0.31	4.12	611
Correct.8	0.87	41.85	0.34	4.49	760
Correct.1	0.88	43.29	0.37	4.95	770
Correct.2	0.88	42.91	0.37	4.85	735
Correct.3	0.87	42.48	0.37	4.91	762
Correct.4	0.92	46.14	0.37	4.84	672
Correct.5	0.92	46.01	0.36	4.82	678
Correct.6	0.93	47.24	0.39	5.11	796
Correct.7	0.87	41.80	0.39	5.16	726
Correct.8	0.91	45.68	0.38	5.08	745



Failed Tunings

SqID	Failure reason
Correct.1	index 1 is out of bounds for axis 0 with size 1
Correct.5	The temperature reading was invalid - is the squid controller plugged in?
Correct.6	The temperature reading was invalid - is the squid controller plugged in?
Correct.7	The temperature reading was invalid - is the squid controller plugged in?
Correct.8	The temperature reading was invalid - is the squid controller plugged in?
Correct.6	There is no peak to peak amplitude that is at frac_Vppmax_at_bias of the maximum amplitude for a SQUID_bias higher than the one for which the peak to peak is maximum. Try increasing the maximum current bias or look at V-Phi curves.
Correct.3	The max peak to peak was less than 0.005. Squid may have trapped flux or not be functioning properly.
Correct.1	There is no peak to peak amplitude that is at frac_Vppmax_at_bias of the maximum amplitude for a SQUID_bias higher than the one for which the peak to peak is maximum. Try increasing the maximum current bias or look at V-Phi curves.
Correct.2	There is no peak to peak amplitude that is at frac_Vppmax_at_bias of the maximum amplitude for a SQUID_bias higher than the one for which the peak to peak is maximum. Try increasing the maximum current bias or look at V-Phi curves.
Correct.7	There is no peak to peak amplitude that is at frac_Vppmax_at_bias of the maximum amplitude for a SQUID_bias higher than the one for which the peak to peak is maximum. Try increasing the maximum current bias or look at V-Phi curves.
Correct.2	There is no peak to peak amplitude that is at frac_Vppmax_at_bias of the maximum amplitude for a SQUID_bias higher than the one for which the peak to peak is maximum. Try increasing the maximum current bias or look at V-Phi curves.
Correct.5	Original Error: ERROR: No zero present between Offset DAC brackets [0.0,4.5]. Explanation: Could not zero the ADC output using the offset_zero algorithm before beginning. You may have an unplugged cable, or short, or some offset present that puts the zero point outside the offset DAC at the default SQUID Controller DAC values (0.2 V Current bias, 2.5 V flux bias)

Correct.7	There is no peak to peak amplitude that is at frac_Vppmax_at_bias of the maximum amplitude for a SQUID_bias higher than the one for which the peak to peak is maximum. Try increasing the maximum current bias or look at V-Phi curves.
Correct.5	The temperature reading was invalid - is the squid controller plugged in?
Correct.6	The temperature reading was invalid - is the squid controller plugged in?
Correct.7	The temperature reading was invalid - is the squid controller plugged in?
Correct.8	The temperature reading was invalid - is the squid controller plugged in?
Correct.6	index 1 is out of bounds for axis 0 with size 1
Correct.3	index 1 is out of bounds for axis 0 with size 1
Correct.5	The temperature reading was invalid - is the squid controller plugged in?
Correct.6	The temperature reading was invalid - is the squid controller plugged in?
Correct.7	The temperature reading was invalid - is the squid controller plugged in?
Correct.8	The temperature reading was invalid - is the squid controller plugged in?