

RADIATION TEST REPORT

PRODUCT:	AD8212AL/QMLL
GAMMA/TM:	30k, 50k, 75k, 100k/TM1019 Condition D
GAMMA SOURCE:	Co60
DOSE RATE:	<10mRad(si)/s
FACILITIES:	University of Massachusetts @ Lowell
TESTED:	2010/2011

The RADTESTSM DATA SERVICE is a compilation of radiation test results on Analog Devices' Space grade products. It is designed to assist customers in selecting the right product for applications where radiation is a consideration. Many products manufactured by Analog Devices, Inc. have been shown to be radiation tolerant to most tactical radiation environments. Analog Devices, Inc. does not make any claim to maintain or guarantee these levels of radiation tolerance without lot qualification test.

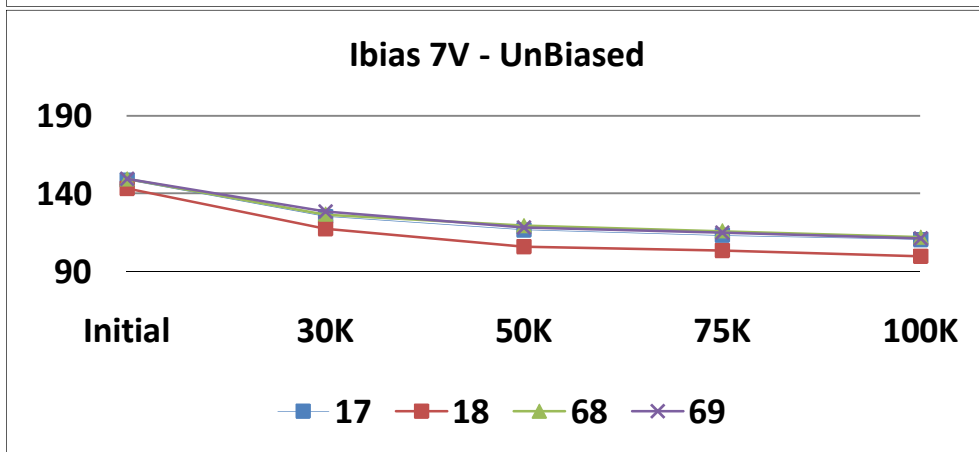
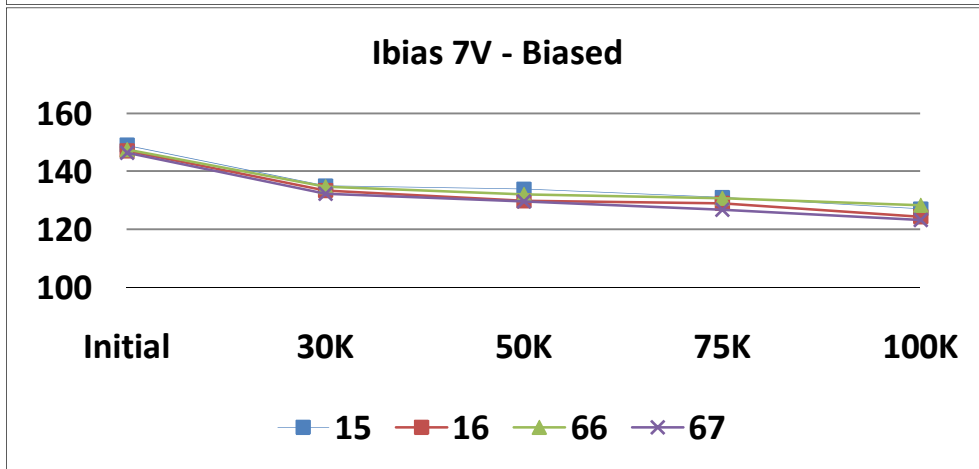
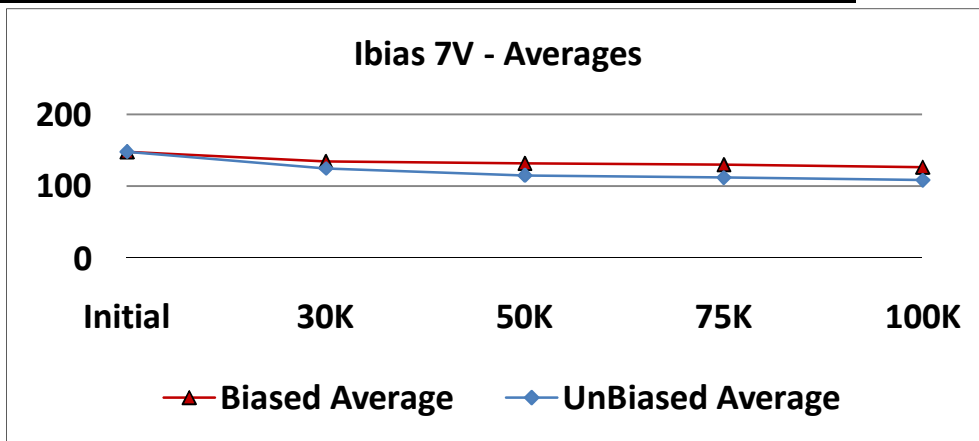
It is the responsibility of the Procuring Activity to screen products from Analog Devices, Inc. for compliance to Nuclear Hardness Critical Items (HCI) specifications.

WARNING:

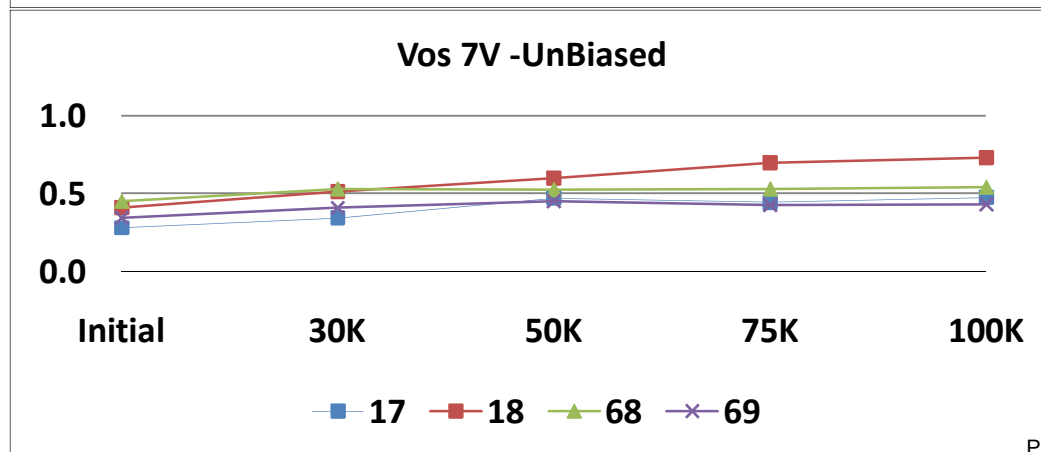
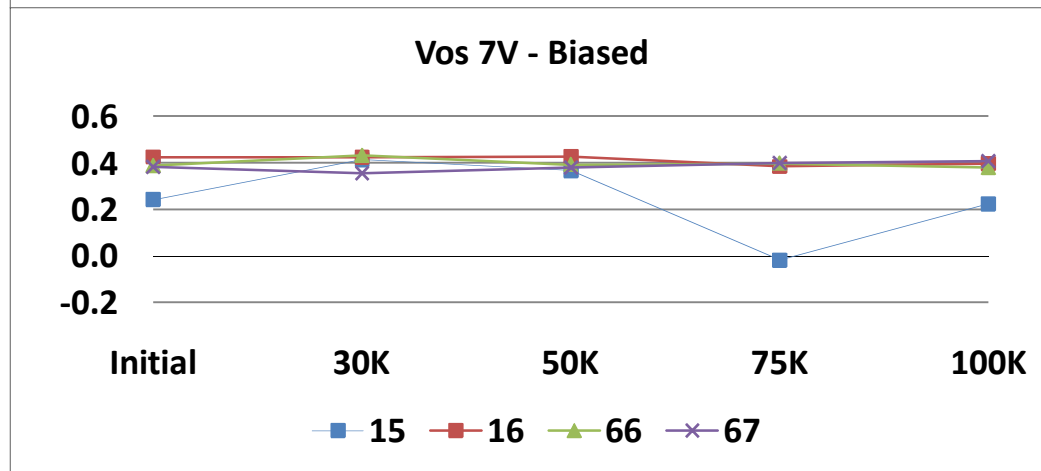
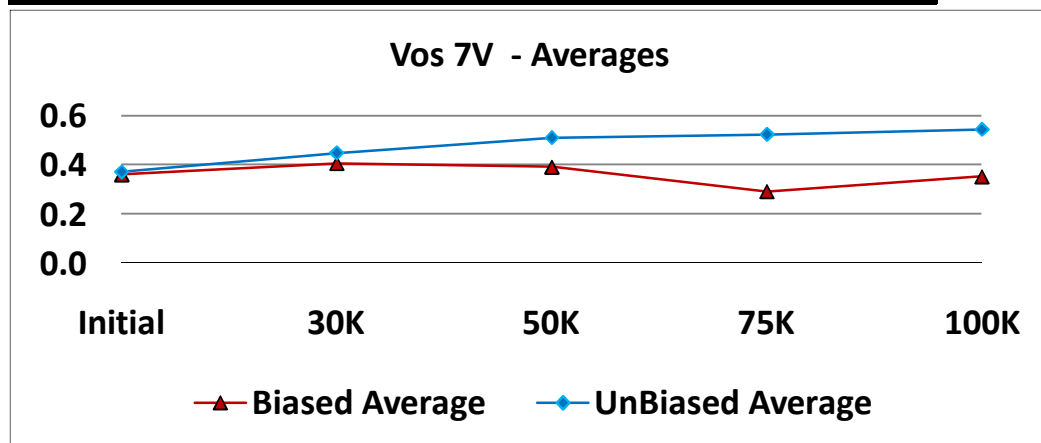
Analog Devices, Inc. does not recommend use of this data to qualify other product grades or process levels. Analog Devices, Inc. is not responsible and has no liability for any consequences, and all applicable Warranties are null and void if any Analog product is modified in any way or used outside of normal environmental and operating conditions, including the parameters specified in the corresponding data sheet. Analog Devices, Inc. does not guarantee that wafer manufacturing is the same for all process levels.



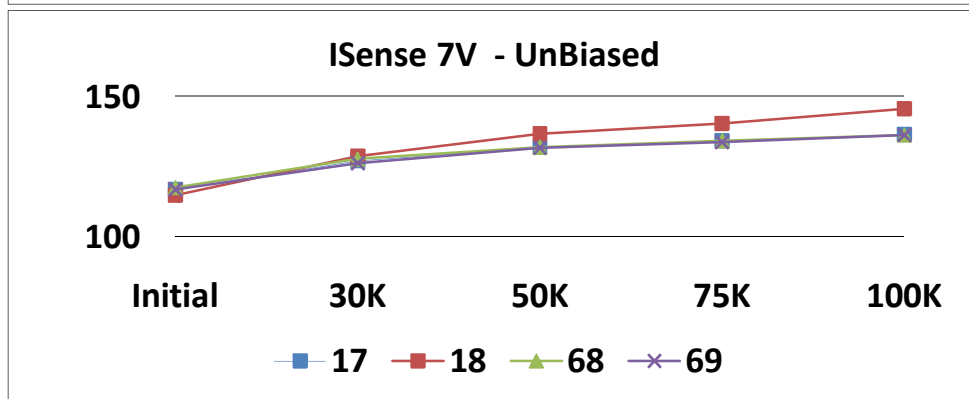
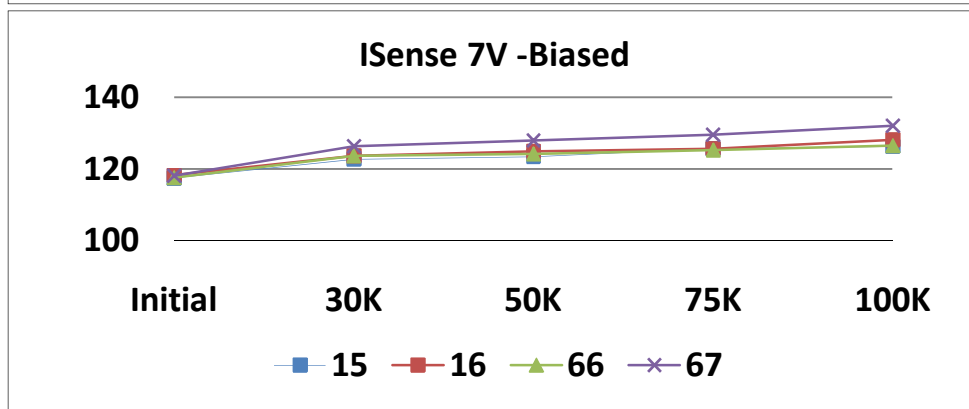
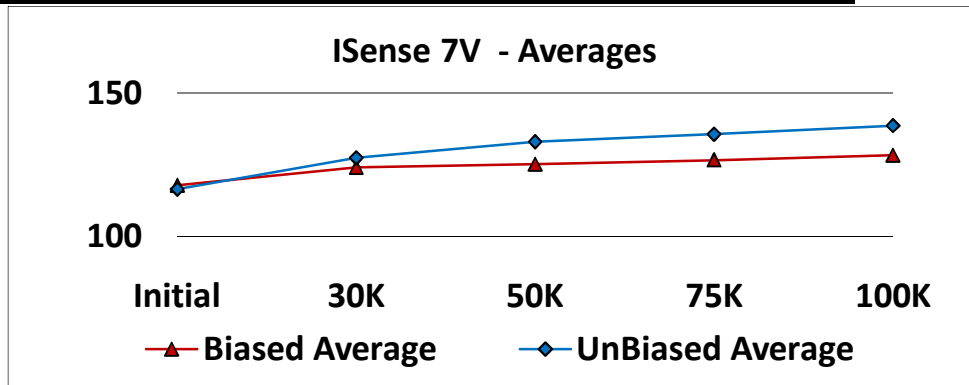
	T# 1	Ibias 7V				uA
	SN	Initial	30K	50K	75K	100K
Control	34	147.370	147.942	146.235	146.901	146.011
	64	149.924	150.559	149.178	149.203	149.154
Biased	15	148.978	134.972	133.853	130.998	127.040
	16	147.065	133.416	129.765	128.917	124.360
	66	147.496	134.646	131.972	130.767	128.280
	67	146.287	132.281	129.596	126.783	123.257
	Min	146.287	132.281	129.596	126.783	123.257
	Max	148.978	134.972	133.853	130.998	128.280
	Average	147.457	133.829	131.297	129.366	125.734
UnBiased	17	148.610	125.134	116.468	113.077	110.297
	18	143.103	117.335	105.831	103.344	99.651
	68	149.315	126.511	119.369	115.810	111.779
	69	149.409	128.445	117.992	114.906	111.159
	Min	143.103	117.335	105.831	103.344	99.651
	Max	149.409	128.445	119.369	115.810	111.779
Average	147.609	124.356	114.915	111.784	108.222	



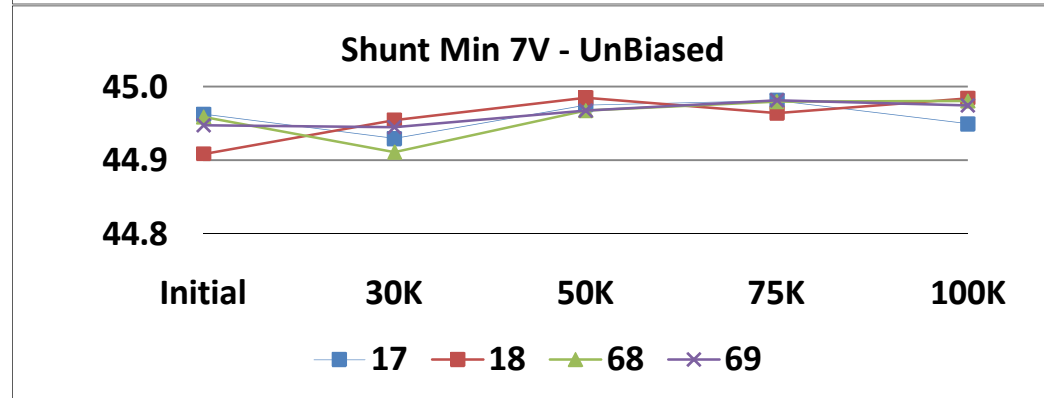
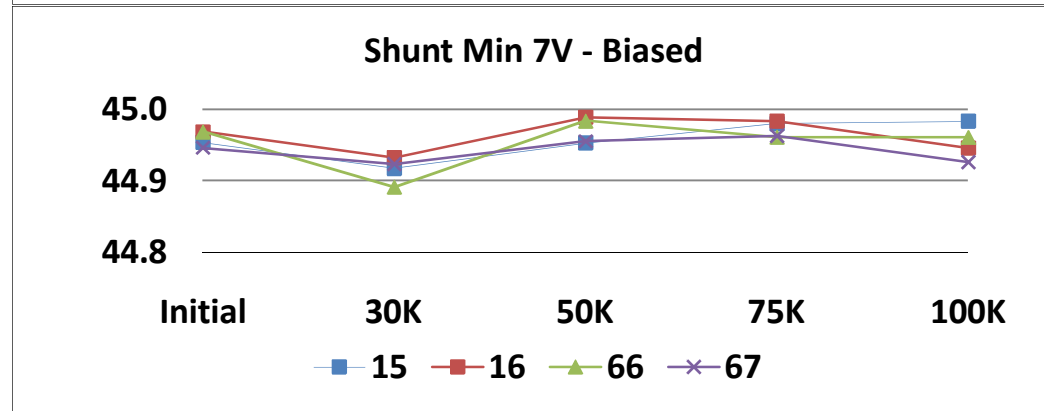
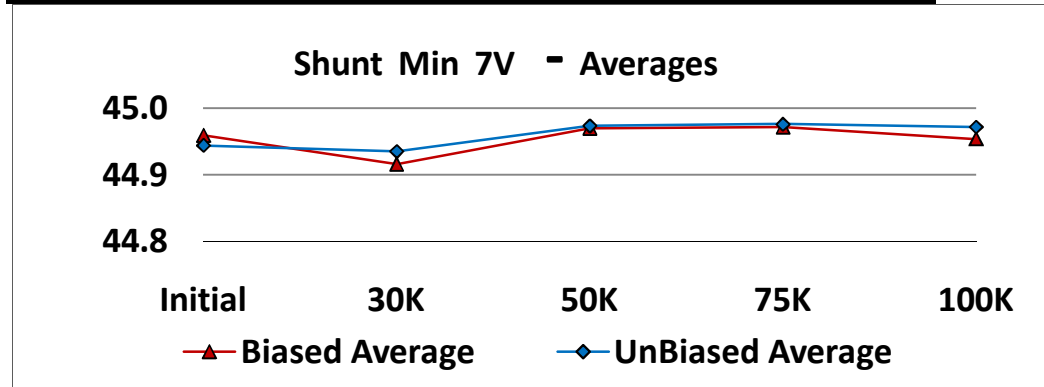
		T# 2	Vos 7V				mV
		SN	Initial	30K	50K	75K	100K
Control	34	0.326	0.336	0.338	0.322	0.323	
	64	0.400	0.405	0.410	0.385	0.397	
Biased	15	0.242	0.413	0.366	-0.018	0.223	
	16	0.425	0.424	0.426	0.384	0.396	
	66	0.389	0.432	0.392	0.398	0.379	
	67	0.383	0.354	0.379	0.400	0.407	
	Min	0.242	0.354	0.366	-0.018	0.223	
	Max	0.425	0.432	0.426	0.400	0.407	
	Average	0.360	0.406	0.391	0.291	0.352	
	UnBiased	17	0.279	0.342	0.469	0.442	0.474
18		0.407	0.512	0.596	0.696	0.729	
68		0.451	0.530	0.525	0.529	0.542	
69		0.343	0.407	0.449	0.426	0.430	
Min		0.279	0.342	0.449	0.426	0.430	
Max		0.451	0.530	0.596	0.696	0.729	
Average		0.370	0.447	0.510	0.523	0.544	



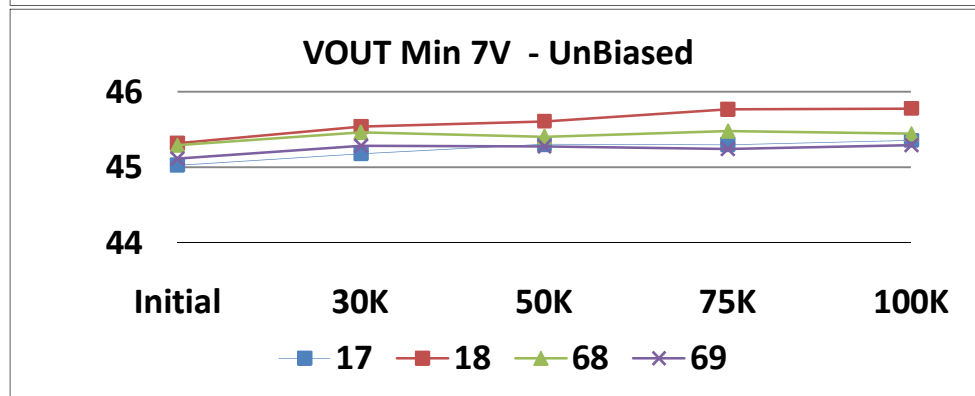
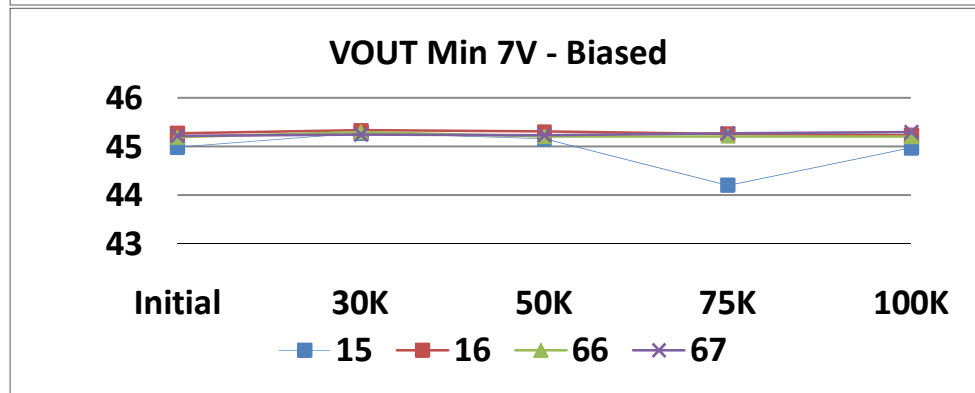
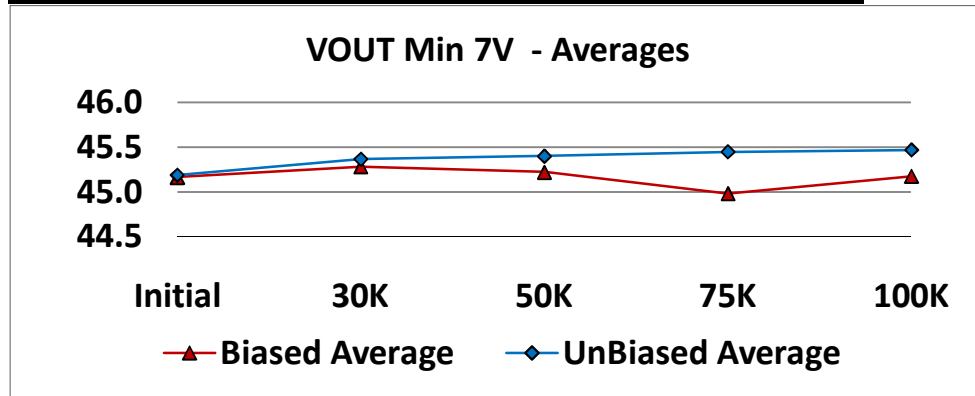
T# 3.0		ISense 7V				nA
SN		Initial	30K	50K	75K	100K
Control	34	113.785	113.296	113.940	114.143	114.077
	64	117.939	117.315	118.101	118.121	117.889
Biased	15	117.436	122.657	123.397	125.671	126.229
	16	118.186	123.653	124.927	125.693	128.122
	66	117.544	123.613	124.165	125.314	126.522
	67	118.096	126.272	127.965	129.622	132.020
	Min	117.436	122.657	123.397	125.314	126.229
	Max	118.186	126.272	127.965	129.622	132.020
	Average	117.816	124.049	125.113	126.575	128.223
UnBiased	17	116.776	127.037	131.823	134.104	136.304
	18	114.802	128.705	136.579	140.356	145.525
	68	117.563	127.638	131.897	134.172	136.242
	69	116.755	126.170	131.576	133.660	136.131
	Min	114.802	126.170	131.576	133.660	136.131
	Max	117.563	128.705	136.579	140.356	145.525
Average	116.474	127.387	132.969	135.573	138.551	



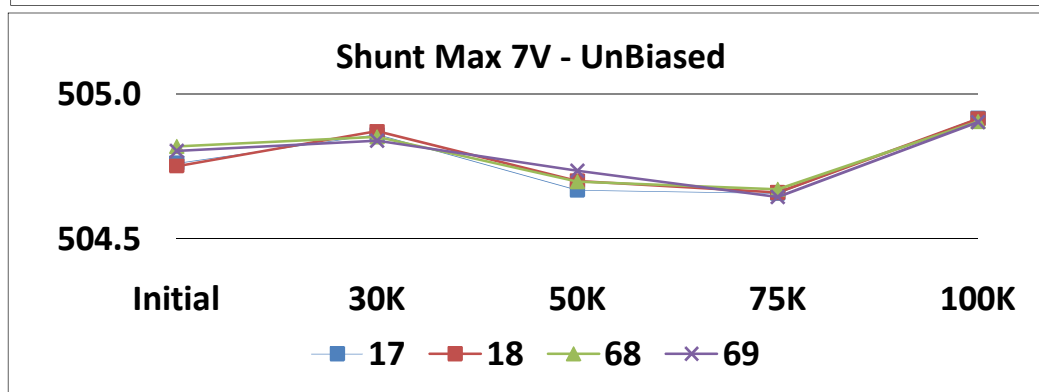
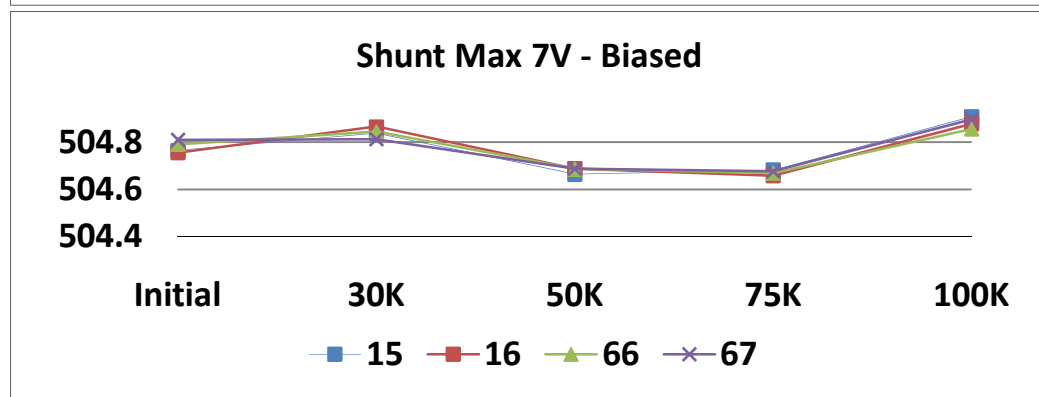
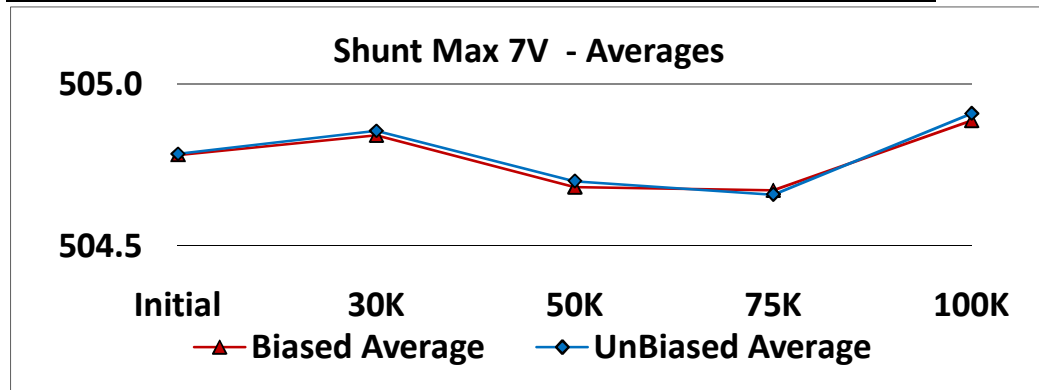
T# 4.0		Shunt Min 7V				mV
SN		Initial	30K	50K	75K	100K
Control	34	44.928	44.941	44.955	44.967	44.977
	64	44.955	44.919	44.982	44.985	44.928
Biased	15	44.953	44.917	44.952	44.980	44.983
	16	44.968	44.932	44.989	44.983	44.946
	66	44.968	44.891	44.984	44.961	44.960
	67	44.946	44.923	44.955	44.962	44.926
	Min	44.946	44.891	44.952	44.961	44.926
	Max	44.968	44.932	44.989	44.983	44.983
	Average	44.959	44.916	44.970	44.971	44.954
UnBiased	17	44.962	44.929	44.975	44.981	44.949
	18	44.909	44.954	44.985	44.963	44.984
	68	44.958	44.911	44.967	44.980	44.980
	69	44.947	44.944	44.967	44.981	44.974
	Min	44.909	44.911	44.967	44.963	44.949
	Max	44.962	44.954	44.985	44.981	44.984
	Average	44.944	44.935	44.974	44.976	44.972



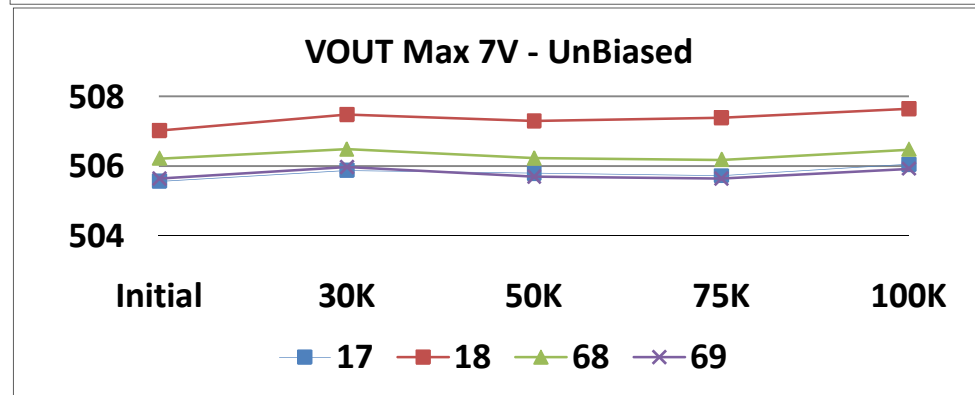
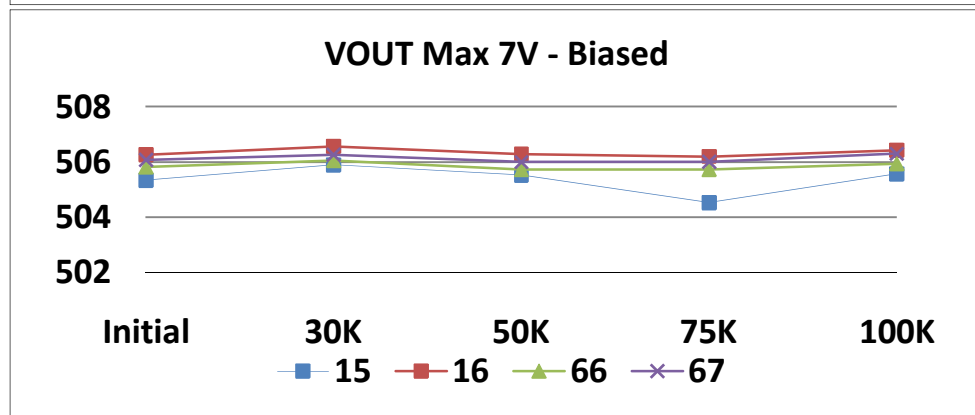
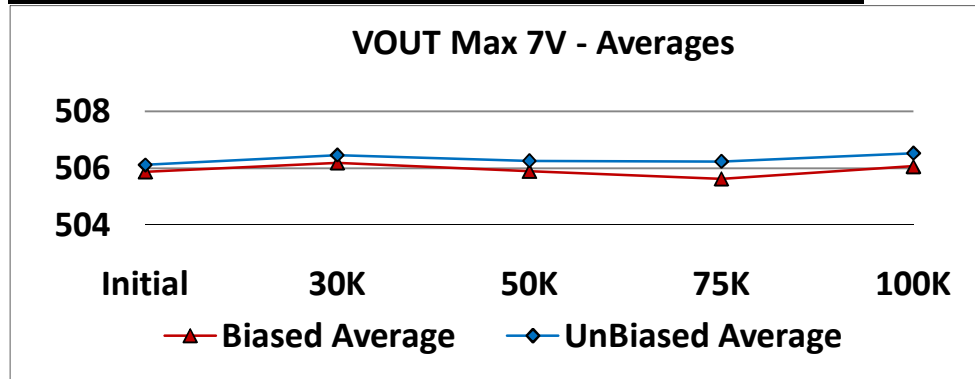
		T#5.0	VOUT Min 7V				mV
		SN	Initial	30K	50K	75K	100K
Control	34	45.144	45.206	45.169	45.133	45.136	45.136
	64	45.212	45.238	45.206	45.202	45.226	45.226
Biased	15	44.981	45.273	45.154	44.198	44.969	44.969
	16	45.269	45.329	45.302	45.253	45.235	45.235
	66	45.188	45.293	45.199	45.209	45.201	45.201
	67	45.213	45.239	45.229	45.265	45.297	45.297
	Min	44.981	45.239	45.154	44.198	44.969	44.969
	Max	45.269	45.329	45.302	45.265	45.297	45.297
	Average	45.163	45.283	45.221	44.981	45.176	45.176
UnBiased	17	45.031	45.179	45.303	45.300	45.357	45.357
	18	45.315	45.538	45.610	45.767	45.779	45.779
	68	45.295	45.463	45.407	45.477	45.445	45.445
	69	45.116	45.287	45.277	45.245	45.292	45.292
	Min	45.031	45.179	45.277	45.245	45.292	45.292
	Max	45.315	45.538	45.610	45.767	45.779	45.779
Average	45.189	45.367	45.399	45.448	45.468	45.468	



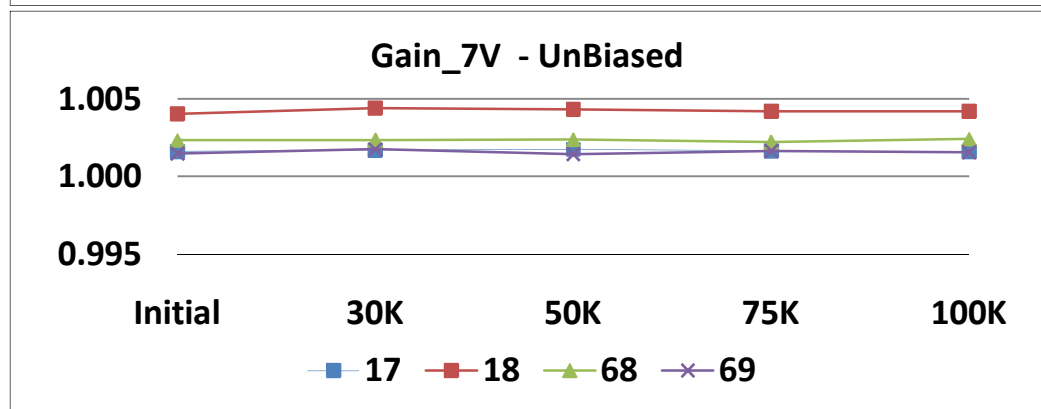
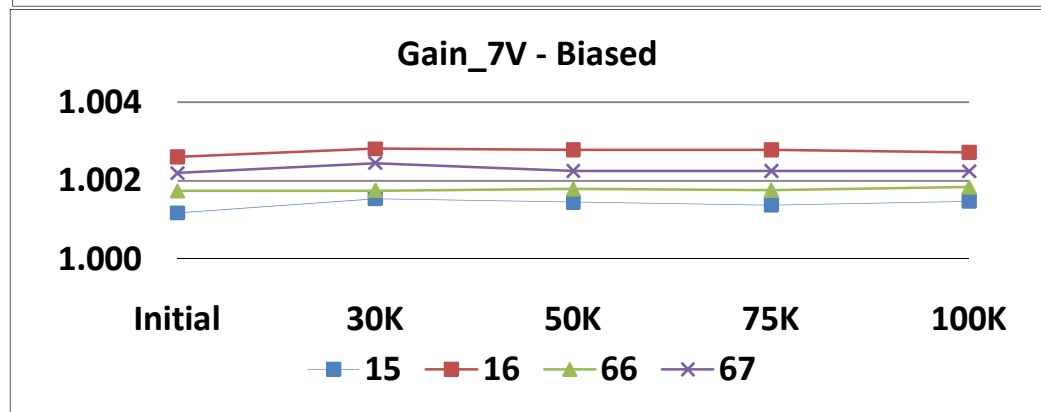
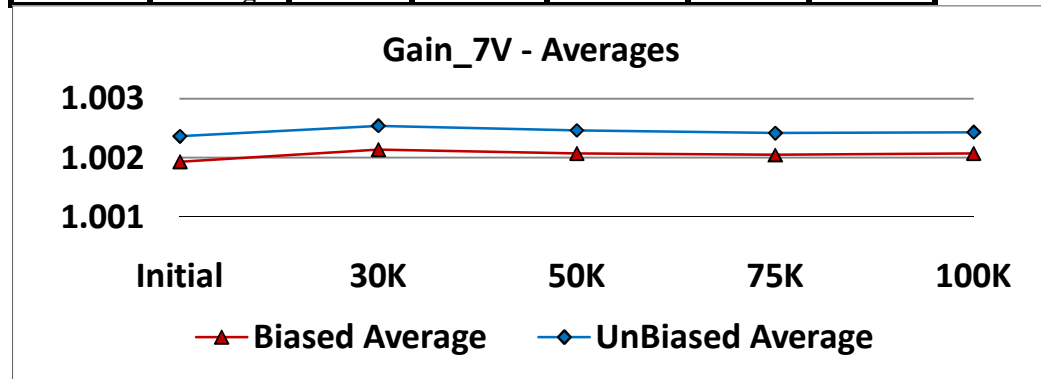
T# 6.0		Shunt Max 7V				mV
SN		Initial	30K	50K	75K	100K
Control	34	504.775	504.853	504.726	504.690	504.951
	64	504.780	504.827	504.726	504.684	504.912
Biased	15	504.765	504.838	504.663	504.682	504.910
	16	504.755	504.867	504.687	504.657	504.879
	66	504.793	504.846	504.687	504.669	504.858
	67	504.810	504.814	504.688	504.675	504.898
	Min	504.755	504.814	504.663	504.657	504.858
	Max	504.810	504.867	504.688	504.682	504.910
	Average	504.781	504.841	504.681	504.671	504.886
UnBiased	17	504.762	504.859	504.668	504.658	504.917
	18	504.752	504.871	504.699	504.661	504.913
	68	504.819	504.852	504.698	504.672	504.904
	69	504.803	504.838	504.734	504.644	504.902
	Min	504.752	504.838	504.668	504.644	504.902
	Max	504.819	504.871	504.734	504.672	504.917
	Average	504.784	504.855	504.700	504.659	504.909



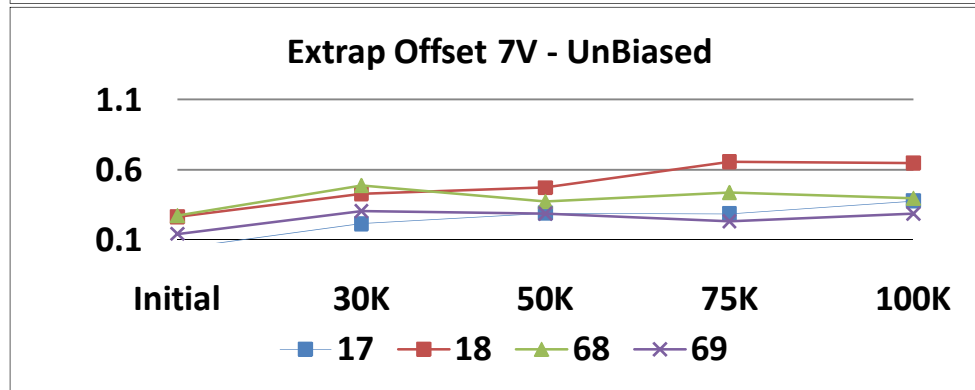
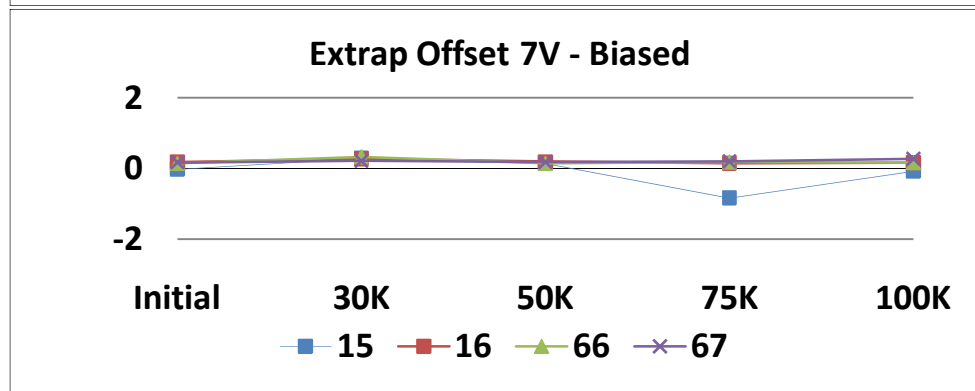
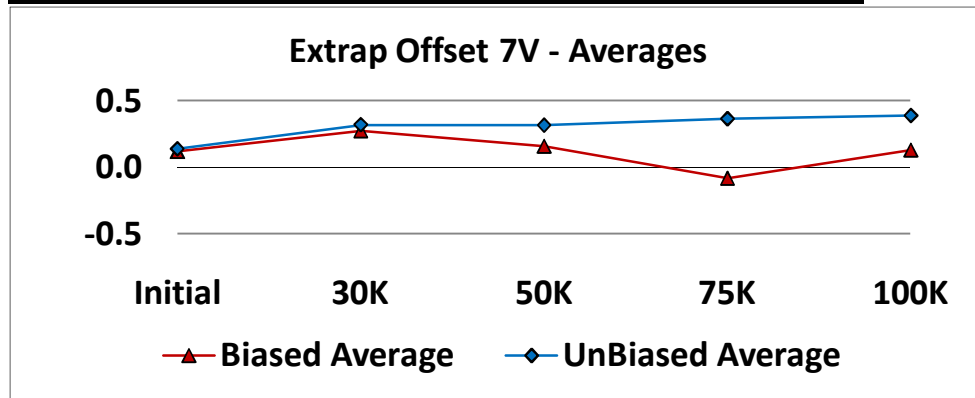
T# 7.0		VOUT Max 7V				mV
SN		Initial	30K	50K	75K	100K
Control	34	506.036	506.234	505.995	505.967	506.247
	64	505.908	506.030	505.815	505.796	506.043
Biased	15	505.338	505.902	505.531	504.534	505.576
	16	506.253	506.556	506.284	506.204	506.421
	66	505.813	506.052	505.724	505.727	505.943
	67	506.086	506.259	505.998	506.014	506.298
	Min	505.338	505.902	505.531	504.534	505.576
	Max	506.253	506.556	506.284	506.204	506.421
	Average	505.873	506.192	505.884	505.620	506.059
UnBiased	17	505.572	505.883	505.797	505.730	506.055
	18	507.018	507.476	507.299	507.387	507.637
	68	506.221	506.482	506.226	506.185	506.474
	69	505.648	505.981	505.700	505.652	505.929
	Min	505.572	505.883	505.700	505.652	505.929
	Max	507.018	507.476	507.299	507.387	507.637
Average	506.115	506.456	506.256	506.238	506.524	



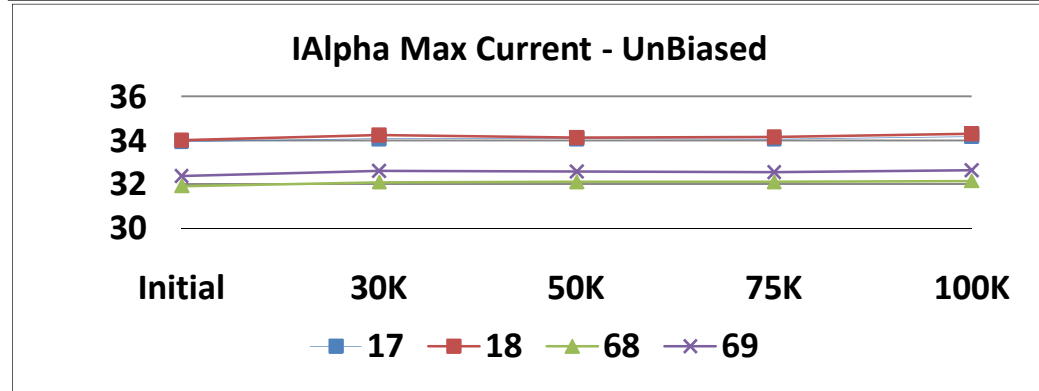
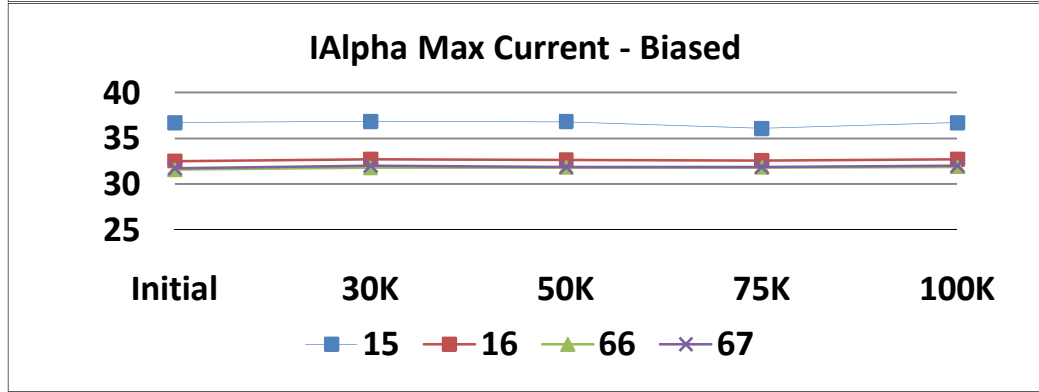
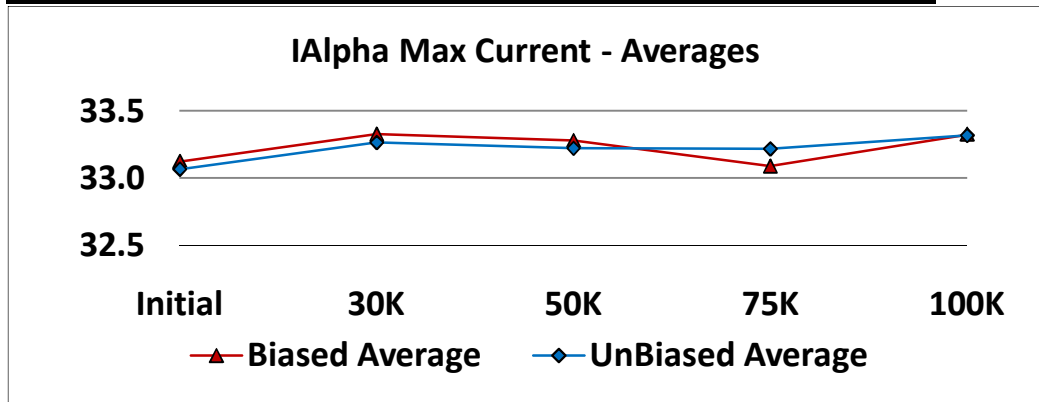
		T# 8.0	Gain_7V				
		SN	Initial	30K	50K	75K	100K
Control	34	1.0023	1.0024	1.0023	1.0024	1.0025	
	64	1.0019	1.0019	1.0019	1.0020	1.0018	
Biased	15	1.0012	1.0015	1.0015	1.0014	1.0015	
	16	1.0026	1.0028	1.0028	1.0028	1.0027	
	66	1.0017	1.0018	1.0018	1.0018	1.0018	
	67	1.0022	1.0025	1.0023	1.0023	1.0022	
	Min	1.0012	1.0015	1.0015	1.0014	1.0015	
	Max	1.0026	1.0028	1.0028	1.0028	1.0027	
	Average	1.0019	1.0021	1.0021	1.0020	1.0021	
UnBiased	17	1.0016	1.0017	1.0017	1.0016	1.0016	
	18	1.0040	1.0044	1.0043	1.0042	1.0042	
	68	1.0023	1.0023	1.0024	1.0022	1.0024	
	69	1.0015	1.0017	1.0014	1.0016	1.0015	
	Min	1.0015	1.0017	1.0014	1.0016	1.0015	
	Max	1.0040	1.0044	1.0043	1.0042	1.0042	
	Average	1.0024	1.0025	1.0025	1.0024	1.0024	



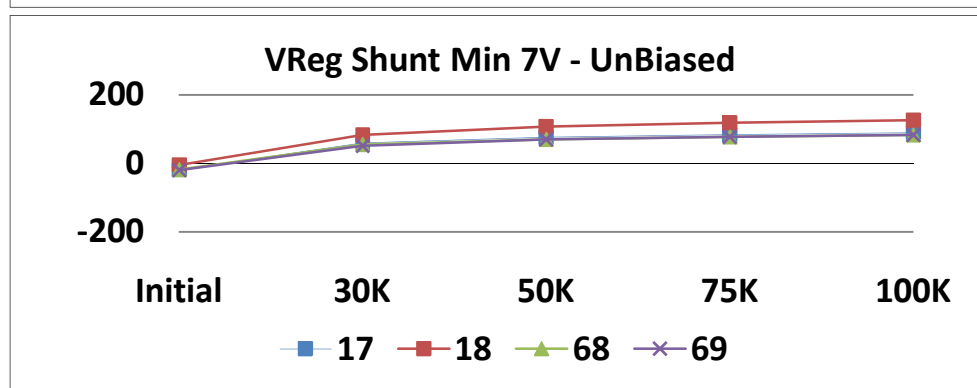
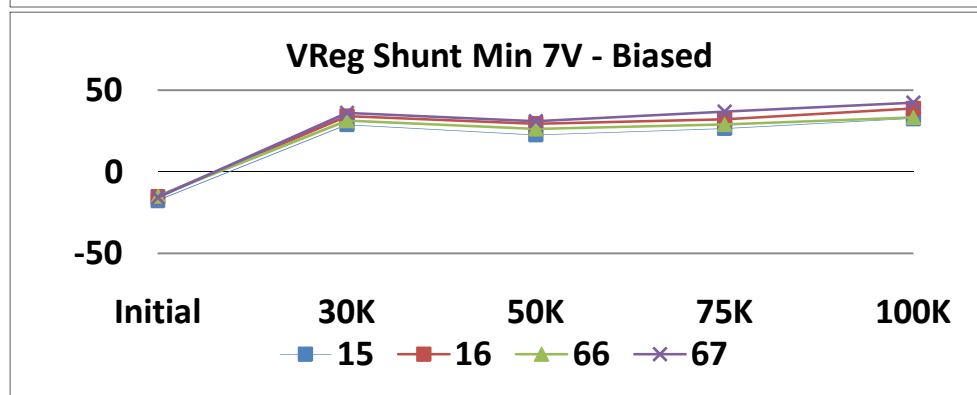
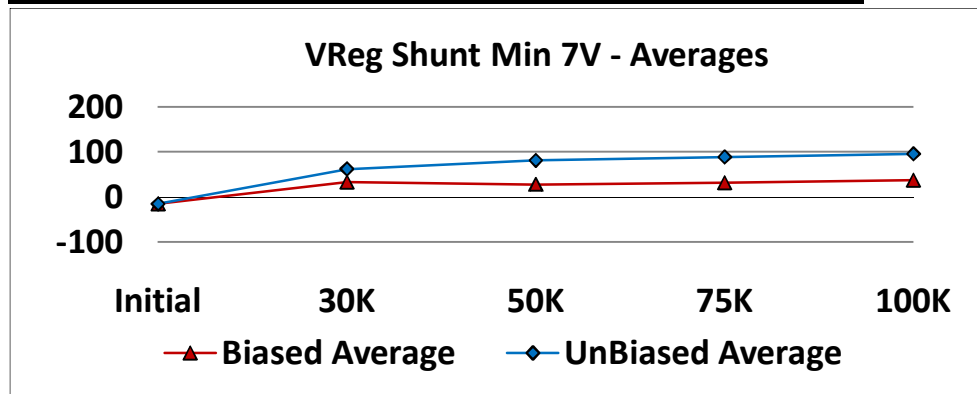
		T# 9.0	Extrap Offset 7V				
		SN	Initial	30K	50K	75K	100K
Control	34	0.114	0.156	0.111	0.058	0.049	
	64	0.172	0.232	0.139	0.130	0.216	
Biased	15	-0.025	0.287	0.136	-0.844	-0.080	
	16	0.184	0.271	0.188	0.145	0.167	
	66	0.141	0.324	0.135	0.169	0.158	
	67	0.168	0.206	0.172	0.202	0.271	
	Min	-0.025	0.206	0.135	-0.844	-0.080	
	Max	0.184	0.324	0.188	0.202	0.271	
	Average	0.117	0.272	0.158	-0.082	0.129	
UnBiased	17	-0.003	0.175	0.250	0.246	0.336	
	18	0.225	0.386	0.432	0.616	0.606	
	68	0.233	0.448	0.333	0.398	0.357	
	69	0.103	0.264	0.246	0.192	0.248	
	Min	-0.003	0.175	0.246	0.192	0.248	
	Max	0.233	0.448	0.432	0.616	0.606	
	Average	0.139	0.318	0.315	0.363	0.387	



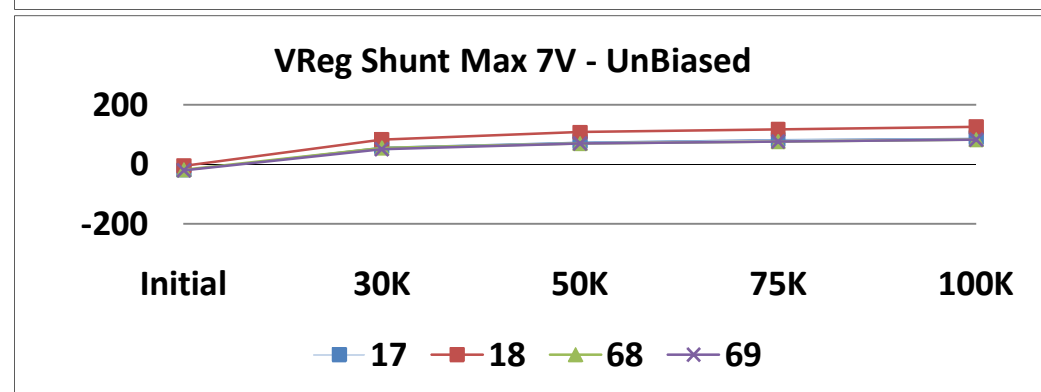
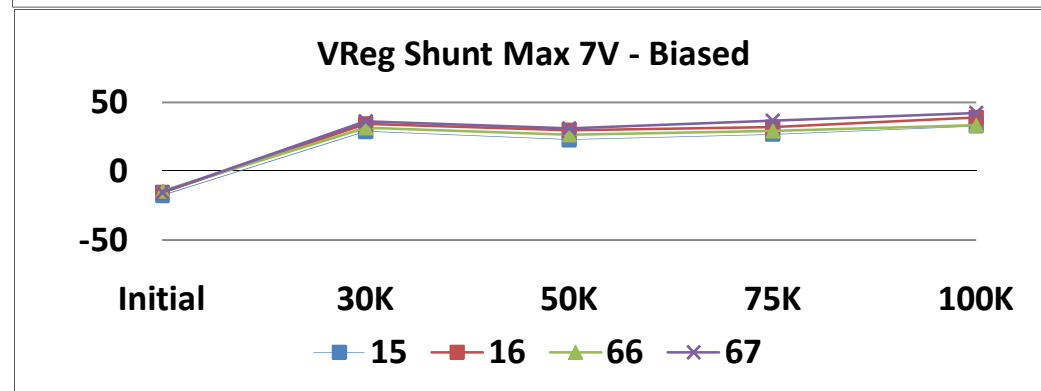
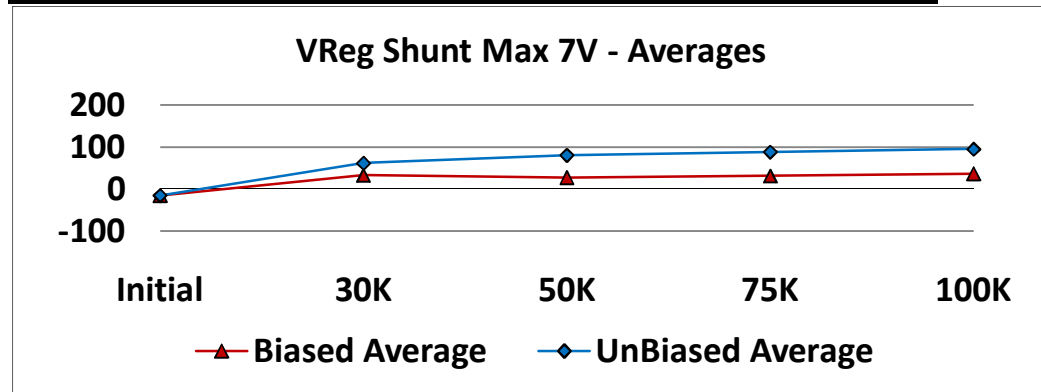
		T# 10.0	IAlpha Max Current				uA
		SN	Initial	30K	50K	75K	100K
Control	34	33.756	33.823	33.754	33.717	33.834	
	64	30.804	30.779	30.866	30.740	30.980	
Biased	15	36.721	36.848	36.814	36.082	36.726	
	16	32.525	32.702	32.635	32.581	32.692	
	66	31.547	31.761	31.800	31.797	31.870	
	67	31.695	31.988	31.862	31.886	32.005	
	Min	31.547	31.761	31.800	31.797	31.870	
	Max	36.721	36.848	36.814	36.082	36.726	
	Average	33.122	33.325	33.278	33.086	33.324	
UnBiased	17	33.953	34.078	34.071	34.064	34.175	
	18	34.016	34.251	34.123	34.153	34.301	
	68	31.927	32.100	32.114	32.104	32.155	
	69	32.367	32.621	32.572	32.542	32.630	
	Min	31.927	32.100	32.114	32.104	32.155	
	Max	34.016	34.251	34.123	34.153	34.301	
	Average	33.066	33.263	33.220	33.216	33.315	



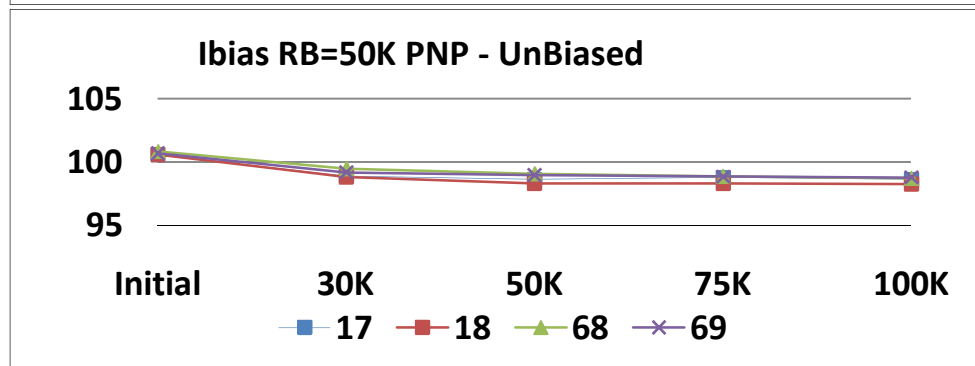
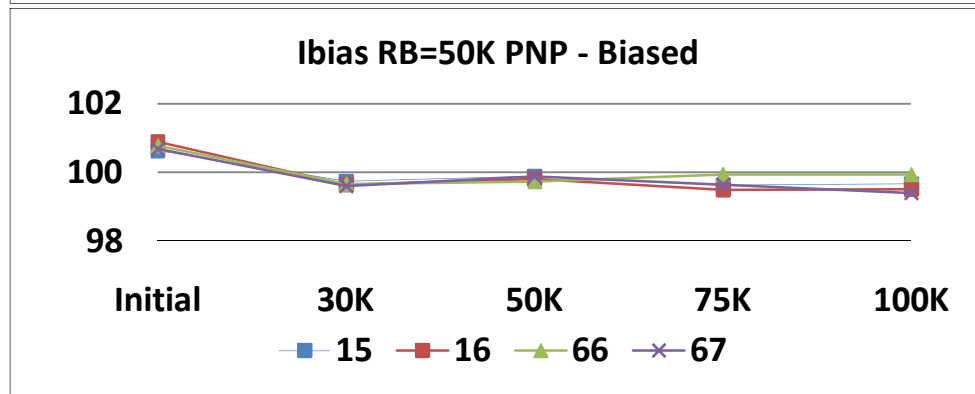
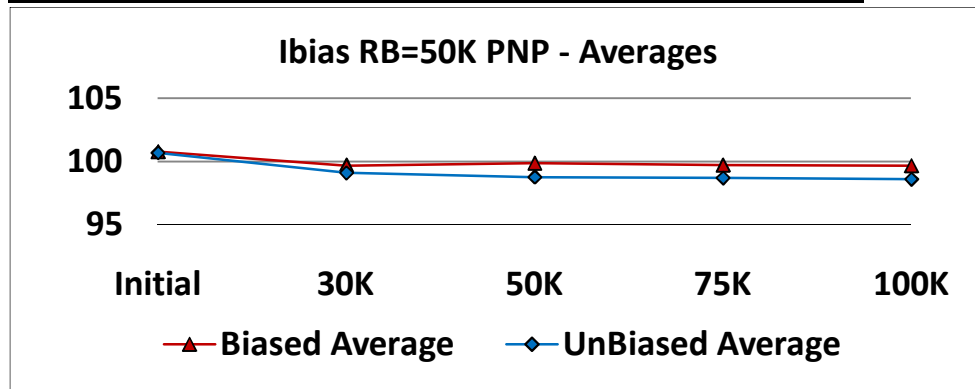
T# 11.0		VReg Shunt Min 7V				mV
SN		Initial	30K	50K	75K	100K
Control	34	-17.404	-18.630	-17.613	-18.420	-17.270
	64	-22.390	-23.757	-22.731	-23.070	-22.665
Biased	15	-17.684	28.826	22.731	26.632	32.660
	16	-15.454	34.325	29.582	32.105	38.842
	66	-14.787	31.393	26.498	29.025	33.528
	67	-15.651	36.074	31.140	36.838	42.362
	Min	-17.684	28.826	22.731	26.632	32.660
	Max	-14.787	36.074	31.140	36.838	42.362
	Average	-15.894	32.654	27.488	31.150	36.848
UnBiased	17	-19.285	58.359	75.669	83.024	89.058
	18	-4.441	82.202	107.443	117.566	124.969
	68	-18.002	55.290	70.019	76.642	83.395
	69	-20.828	51.277	69.996	76.943	83.090
	Min	-20.828	51.277	69.996	76.642	83.090
	Max	-4.441	82.202	107.443	117.566	124.969
Average	-15.639	61.782	80.782	88.544	95.128	



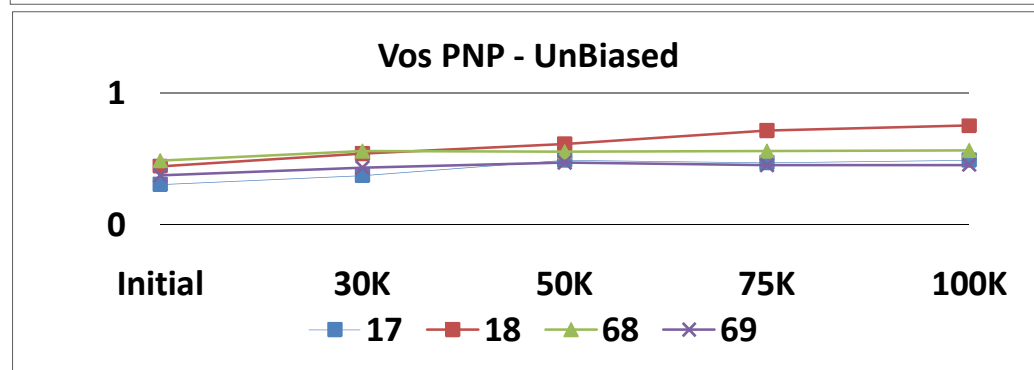
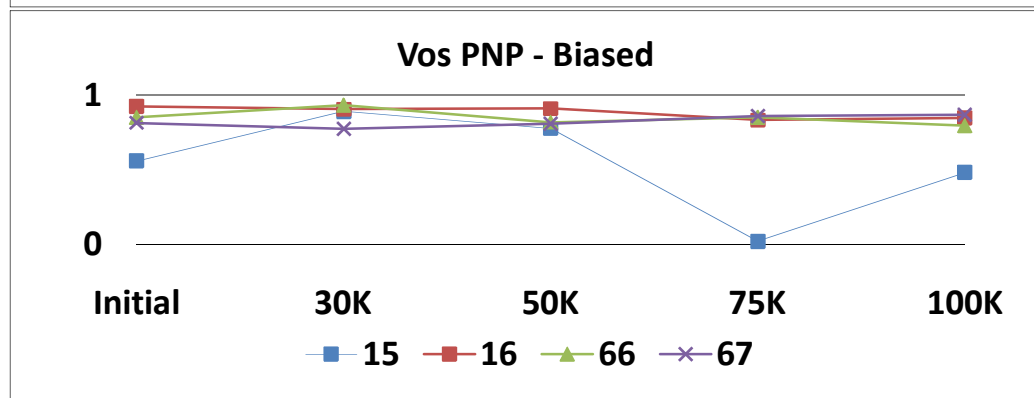
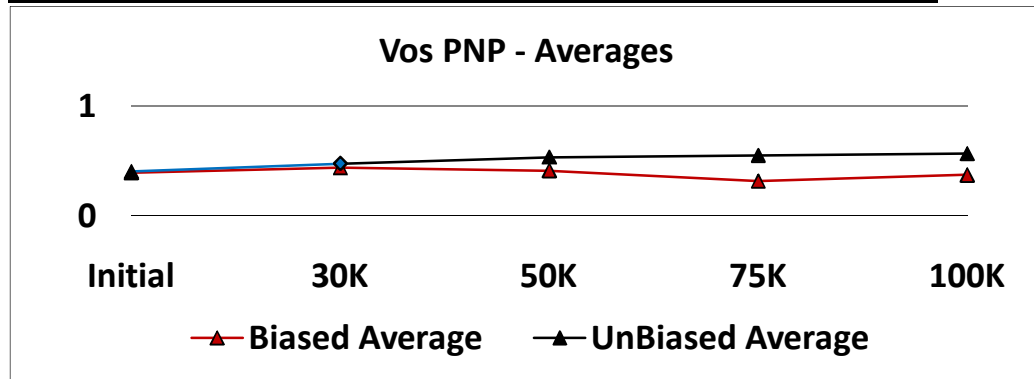
T# 12.0		VReg Shunt Max 7V				mV
SN		Initial	30K	50K	75K	100K
Control	34	-17.451	-18.681	-17.636	-18.491	-17.278
	64	-22.481	-23.884	-22.814	-23.138	-22.725
Biased	15	-17.744	28.745	22.625	26.554	32.706
	16	-15.418	34.331	29.462	32.061	38.879
	66	-14.806	31.303	26.442	28.998	33.505
	67	-15.655	36.024	31.069	36.709	42.347
	Min	-17.744	28.745	22.625	26.554	32.706
	Max	-14.806	36.024	31.069	36.709	42.347
	Average	-15.906	32.601	27.400	31.080	36.859
UnBiased	17	-19.352	58.378	75.686	83.016	89.013
	18	-4.466	82.217	107.342	117.568	124.940
	68	-18.025	55.263	69.981	76.680	83.285
	69	-20.920	51.263	70.052	76.842	83.022
	Min	-20.920	51.263	69.981	76.680	83.022
	Max	-4.466	82.217	107.342	117.568	124.940
	Average	-15.690	61.780	80.765	88.526	95.065



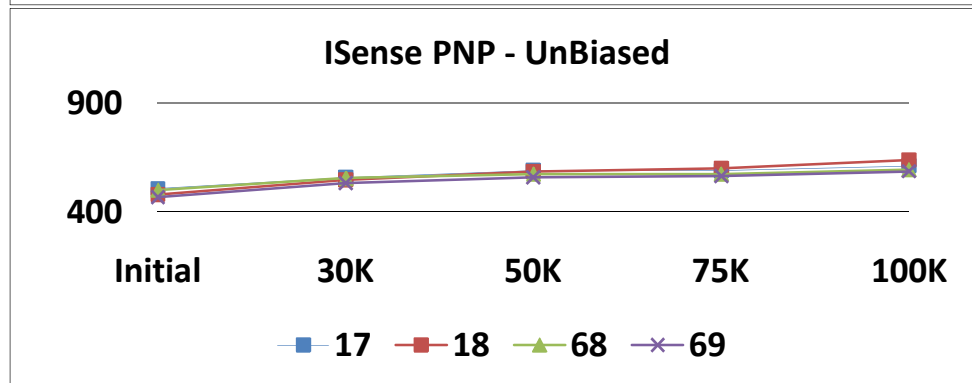
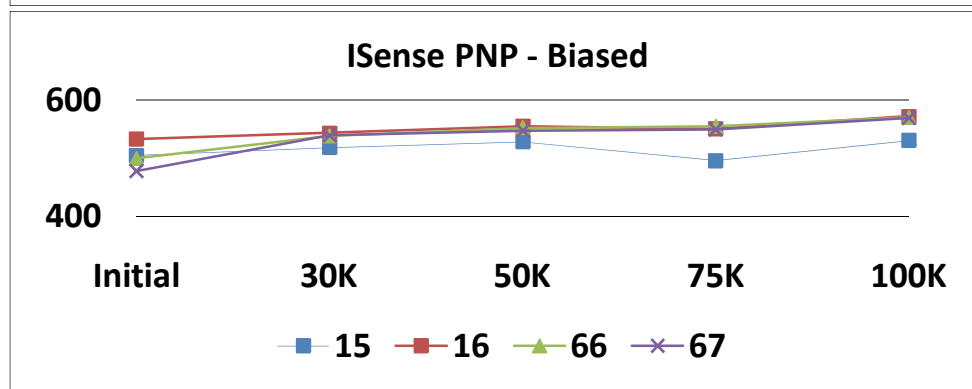
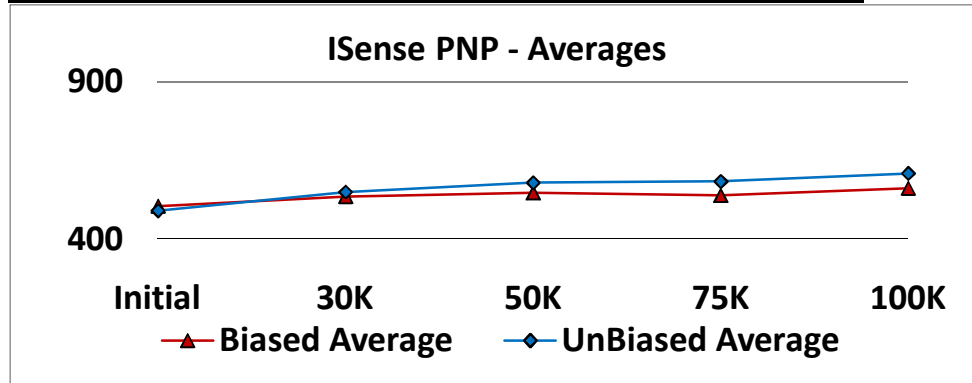
T# 13.0		Ibias RB=50K PNP				uA
SN		Initial	30K	50K	75K	100K
Control	34	100.736	100.698	100.713	100.507	100.566
	64	100.652	100.824	100.913	100.812	101.039
Biased	15	100.631	99.742	99.883	99.624	99.662
	16	100.893	99.637	99.799	99.487	99.505
	66	100.767	99.658	99.736	99.939	99.936
	67	100.673	99.605	99.883	99.645	99.400
	Min	100.631	99.605	99.736	99.487	99.400
	Max	100.893	99.742	99.883	99.939	99.936
	Average	100.741	99.660	99.825	99.674	99.626
UnBiased	17	100.578	98.890	98.632	98.762	98.611
	18	100.568	98.806	98.306	98.300	98.254
	68	100.830	99.447	99.063	98.836	98.685
	69	100.704	99.185	98.979	98.836	98.779
	Min	100.568	98.806	98.306	98.300	98.254
	Max	100.830	99.447	99.063	98.836	98.779
	Average	100.670	99.082	98.745	98.683	98.582



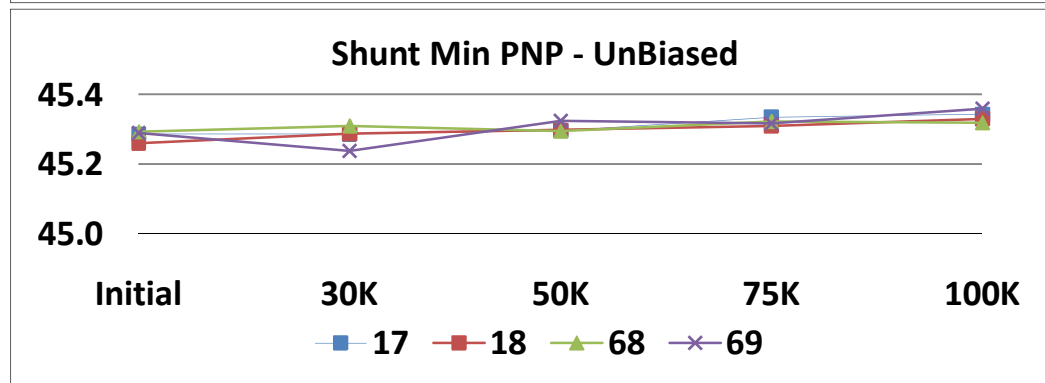
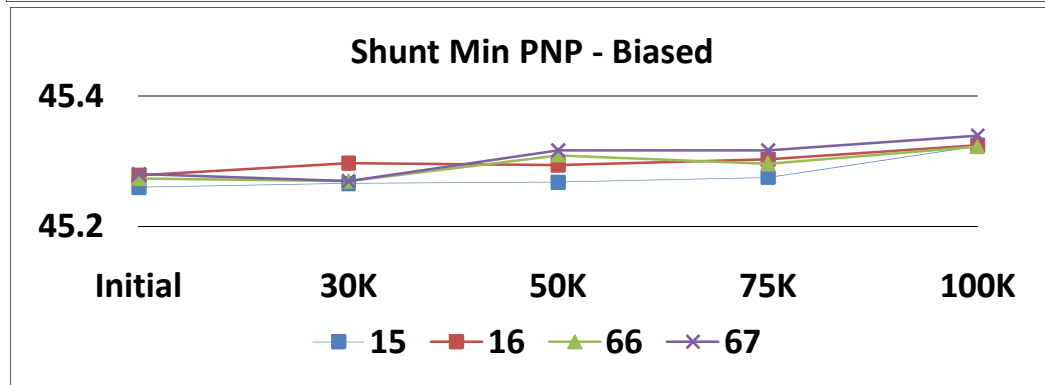
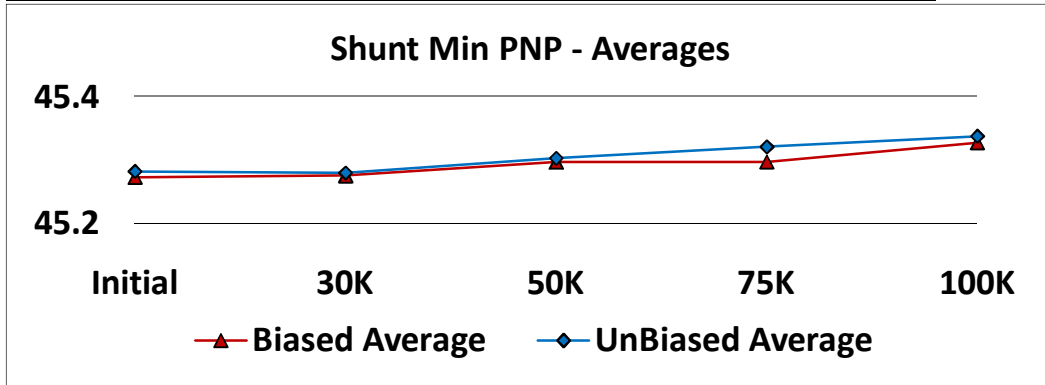
T# 14.0		Vos PNP				mV
SN		Initial	30K	50K	75K	100K
Control	34	0.366	0.367	0.373	0.354	0.359
	64	0.432	0.438	0.437	0.419	0.420
Biased	15	0.278	0.445	0.387	0.010	0.240
	16	0.461	0.452	0.454	0.415	0.422
	66	0.424	0.466	0.408	0.425	0.397
	67	0.407	0.385	0.403	0.430	0.433
	Min	0.278	0.385	0.387	0.010	0.240
	Max	0.461	0.466	0.454	0.430	0.433
	Average	0.392	0.437	0.413	0.320	0.373
UnBiased	17	0.305	0.373	0.489	0.471	0.490
	18	0.444	0.541	0.614	0.716	0.752
	68	0.484	0.557	0.552	0.558	0.563
	69	0.374	0.434	0.473	0.450	0.454
	Min	0.305	0.373	0.473	0.450	0.454
	Max	0.484	0.557	0.614	0.716	0.752
	Average	0.402	0.476	0.532	0.549	0.565



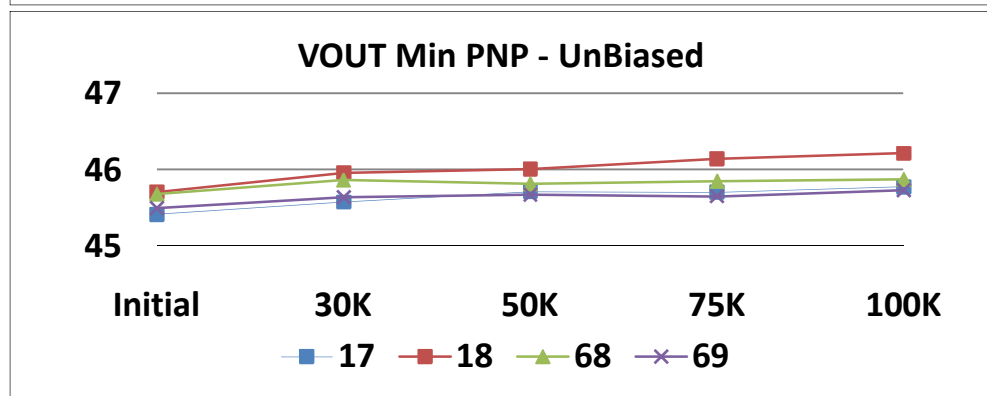
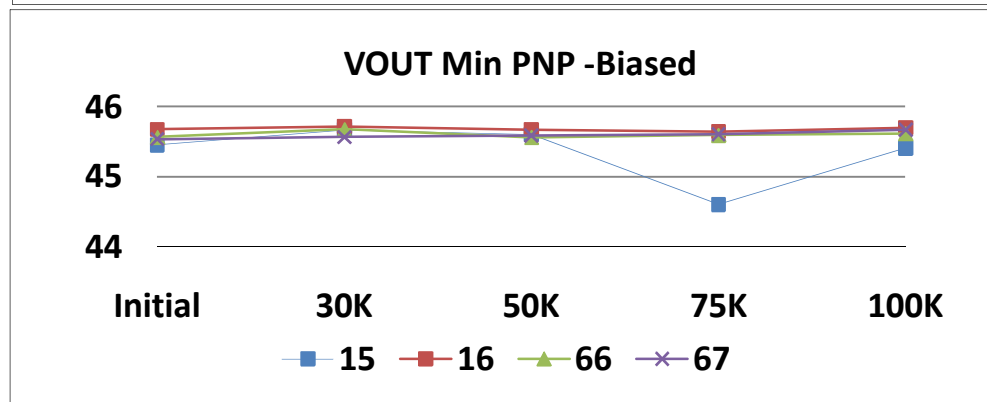
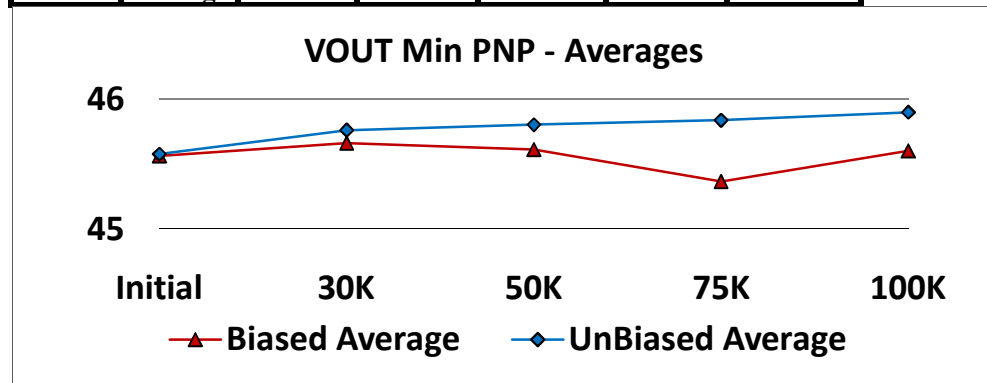
	T# 15.0	ISense PNP				nA
	SN	Initial	30K	50K	75K	100K
Control	34	458.376	467.622	481.446	478.158	490.412
	64	644.628	666.137	686.728	678.033	695.470
Biased	15	504.149	517.825	527.796	495.106	529.996
	16	532.555	542.727	553.846	550.117	571.325
	66	499.797	538.064	551.483	553.901	569.413
	67	477.316	538.384	546.339	548.371	568.478
	Min	477.316	517.825	527.796	495.106	529.996
	Max	532.555	542.727	553.846	553.901	571.325
	Average	503.455	534.250	544.866	536.874	559.803
UnBiased	17	506.416	557.334	589.638	588.257	610.511
	18	479.469	546.592	585.345	598.864	636.741
	68	500.235	554.191	573.983	573.921	594.091
	69	467.777	532.598	559.416	564.369	586.175
	Min	467.777	532.598	559.416	564.369	586.175
	Max	506.416	557.334	589.638	598.864	636.741
	Average	488.474	547.679	577.096	581.353	606.879



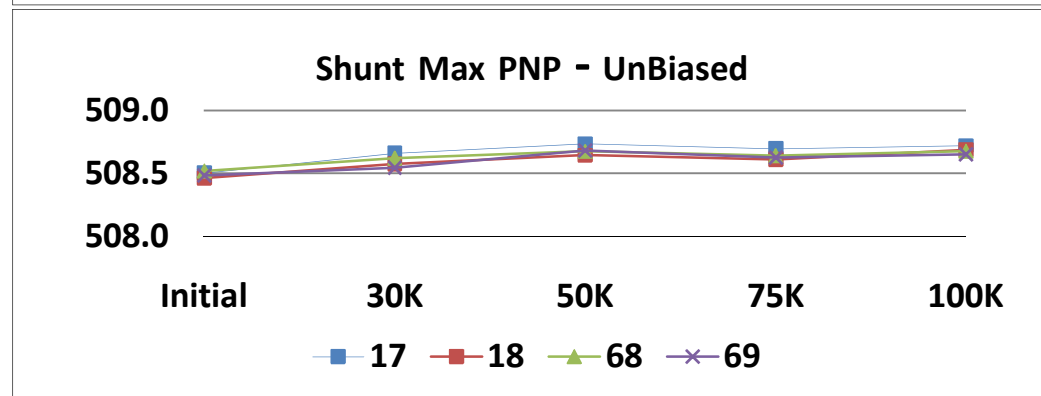
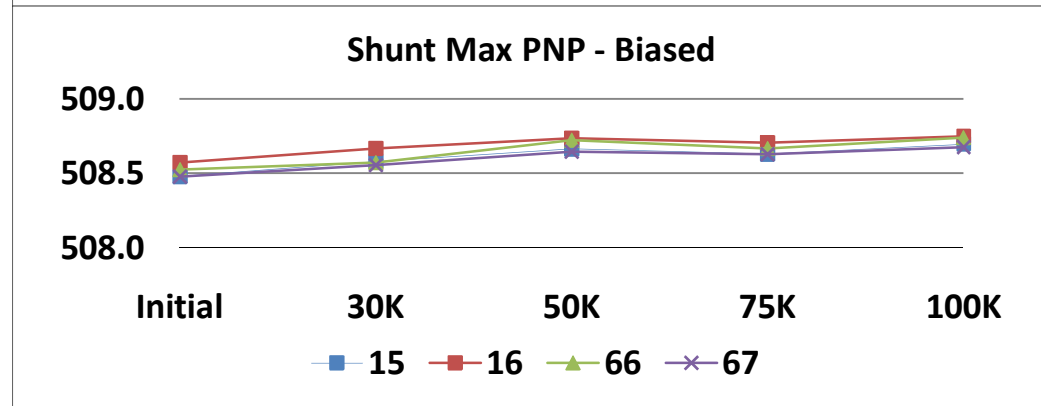
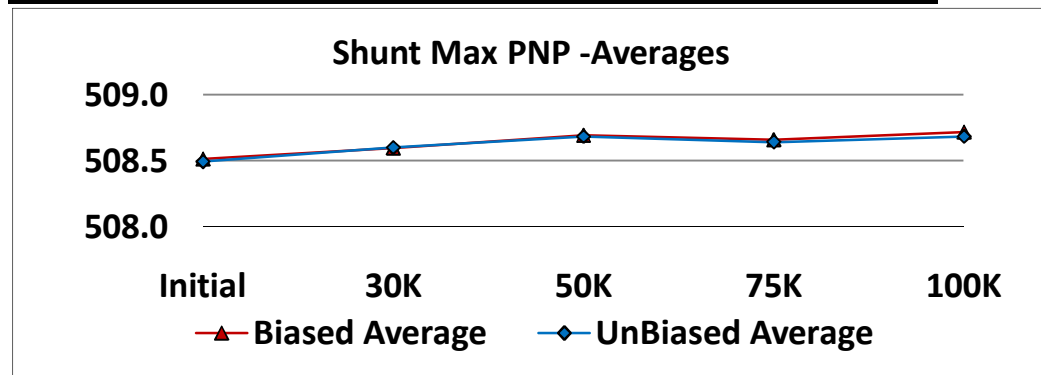
	T# 16.0	Shunt Min PNP				mV
	SN	Initial	30K	50K	75K	100K
Control	34	45.285	45.236	45.294	45.284	45.301
	64	45.322	45.284	45.342	45.313	45.355
Biased	15	45.260	45.266	45.268	45.275	45.323
	16	45.279	45.297	45.294	45.302	45.324
	66	45.274	45.270	45.309	45.296	45.322
	67	45.280	45.270	45.316	45.316	45.339
	Min	45.260	45.266	45.268	45.275	45.322
	Max	45.280	45.297	45.316	45.316	45.339
	Average	45.273	45.275	45.297	45.297	45.327
UnBiased	17	45.286	45.286	45.296	45.335	45.343
	18	45.260	45.287	45.298	45.310	45.329
	68	45.292	45.309	45.294	45.322	45.318
	69	45.290	45.237	45.324	45.316	45.359
	Min	45.260	45.237	45.294	45.310	45.318
	Max	45.292	45.309	45.324	45.335	45.359
	Average	45.282	45.280	45.303	45.321	45.337



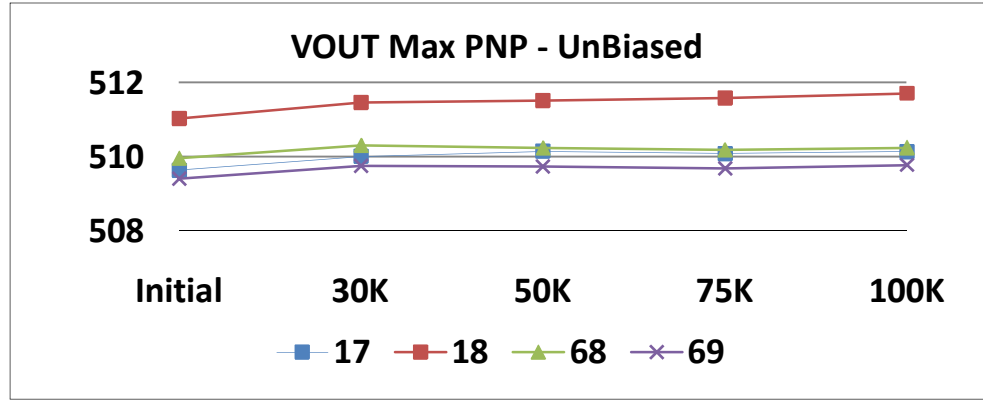
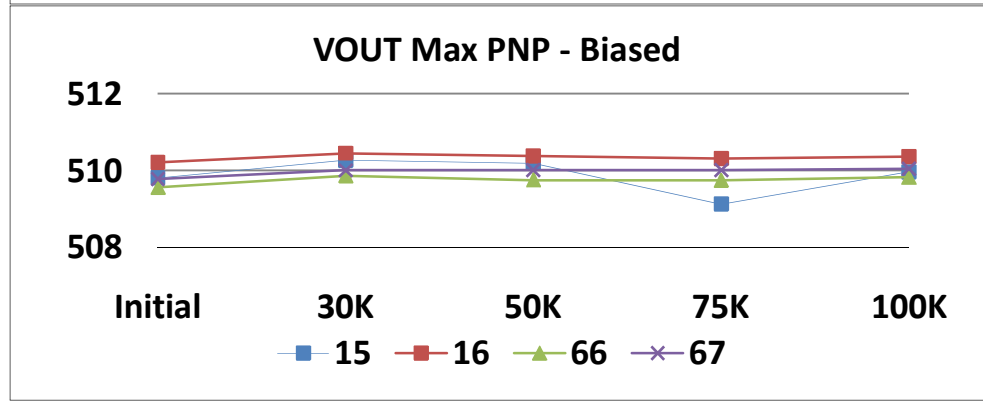
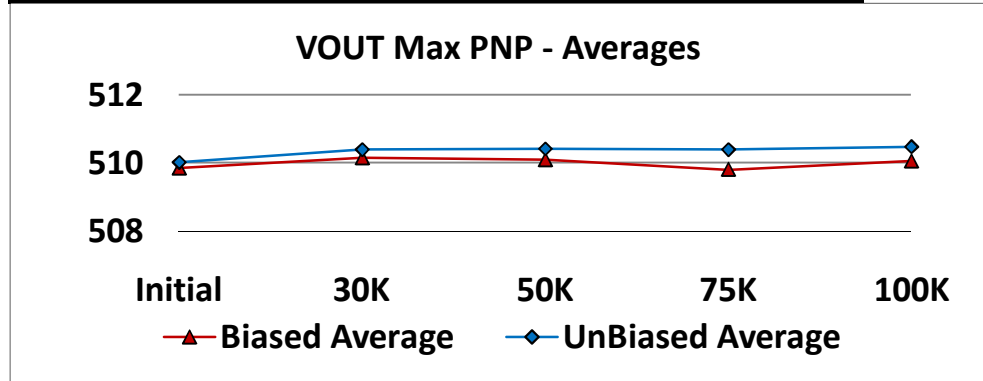
T# 17.0		VOUT Min PNP				mV
SN		Initial	30K	50K	75K	100K
Control	34	45.497	45.531	45.550	45.537	45.555
	64	45.648	45.662	45.635	45.634	45.664
Biased	15	45.451	45.669	45.605	44.603	45.407
	16	45.675	45.718	45.675	45.644	45.694
	66	45.568	45.675	45.564	45.594	45.616
	67	45.537	45.566	45.591	45.603	45.667
	Min	45.451	45.566	45.564	44.603	45.407
	Max	45.675	45.718	45.675	45.644	45.694
	Average	45.558	45.657	45.609	45.361	45.596
	UnBiased	17	45.412	45.573	45.709	45.703
18	45.706	45.958	46.007	46.139	46.210	
68	45.674	45.860	45.809	45.845	45.874	
69	45.494	45.639	45.671	45.648	45.728	
Min	45.412	45.573	45.671	45.648	45.728	
Max	45.706	45.958	46.007	46.139	46.210	
Average	45.572	45.757	45.799	45.833	45.896	



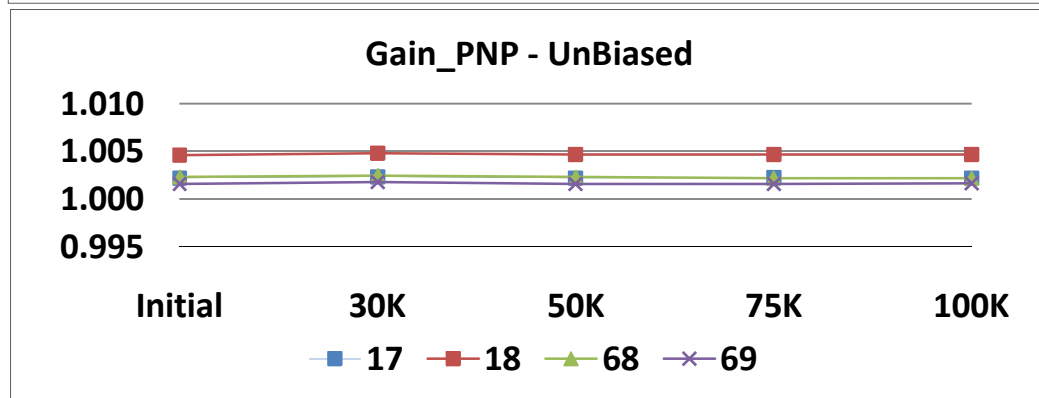
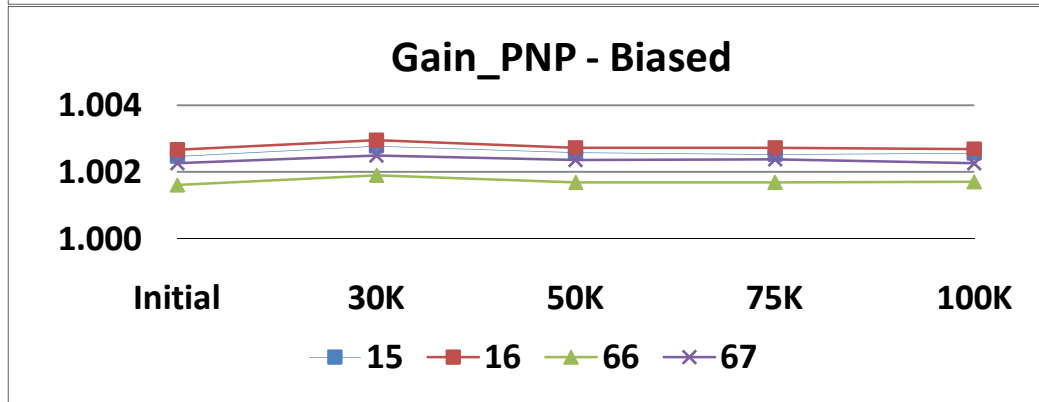
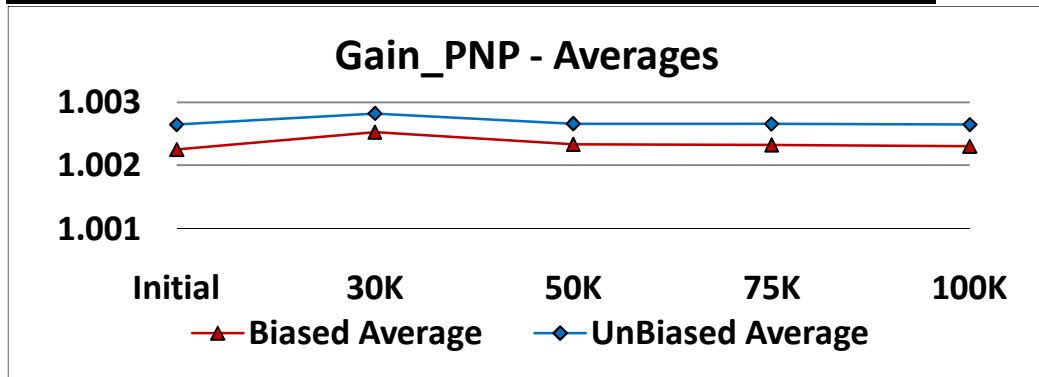
T# 18.0		Shunt Max PNP				mV
SN		Initial	30K	50K	75K	100K
Control	34	508.431	508.523	508.698	508.625	508.696
	64	508.822	508.914	509.031	509.024	509.043
Biased	15	508.477	508.579	508.663	508.629	508.696
	16	508.572	508.667	508.734	508.706	508.750
	66	508.525	508.574	508.722	508.668	508.740
	67	508.477	508.555	508.646	508.628	508.674
	Min	508.477	508.555	508.646	508.628	508.674
	Max	508.572	508.667	508.734	508.706	508.750
	Average	508.513	508.594	508.691	508.658	508.715
UnBiased	17	508.502	508.658	508.734	508.694	508.719
	18	508.464	508.573	508.643	508.609	508.686
	68	508.518	508.622	508.674	508.640	508.677
	69	508.483	508.544	508.679	508.623	508.652
	Min	508.464	508.544	508.643	508.609	508.652
	Max	508.518	508.658	508.734	508.694	508.719
	Average	508.492	508.599	508.683	508.642	508.683



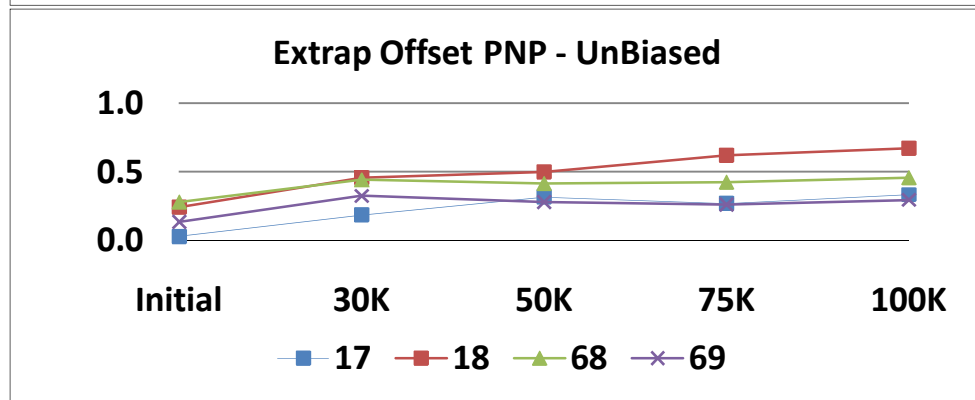
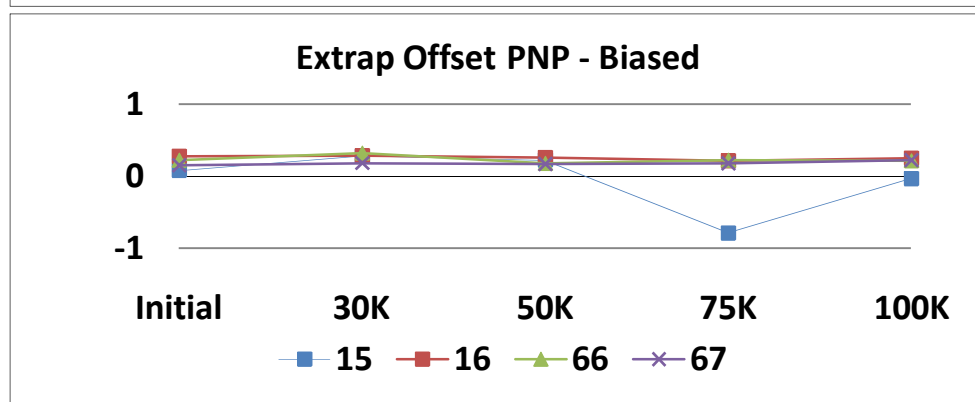
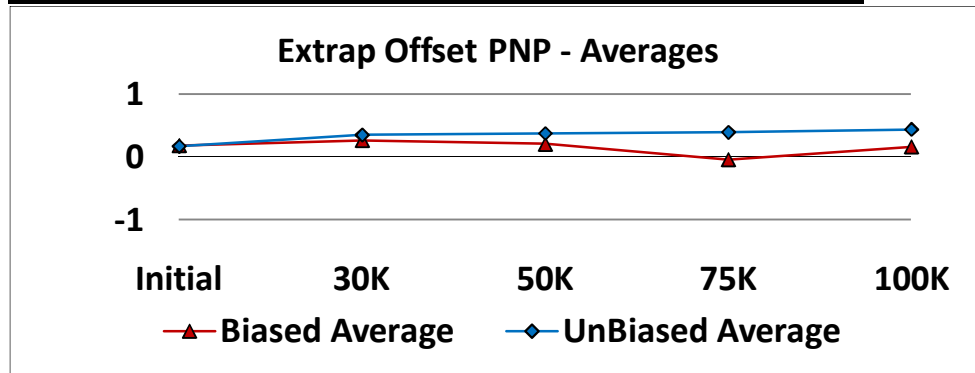
T# 19.0		VOUT Max PNP				mV
SN		Initial	30K	50K	75K	100K
Control	34	509.954	510.189	510.201	510.177	510.214
	64	509.948	510.090	510.121	510.050	510.123
Biased	15	509.806	510.264	510.192	509.123	509.966
	16	510.207	510.453	510.374	510.310	510.368
	66	509.564	509.855	509.753	509.744	509.821
	67	509.781	510.005	510.008	510.014	510.044
	Min	509.564	509.855	509.753	509.123	509.821
	Max	510.207	510.453	510.374	510.310	510.368
	Average	509.840	510.144	510.082	509.798	510.050
UnBiased	17	509.639	510.010	510.151	510.090	510.139
	18	511.027	511.464	511.511	511.590	511.712
	68	509.967	510.305	510.241	510.180	510.246
	69	509.407	509.761	509.743	509.685	509.783
	Min	509.407	509.761	509.743	509.685	509.783
	Max	511.027	511.464	511.511	511.590	511.712
Average	510.010	510.385	510.411	510.386	510.470	



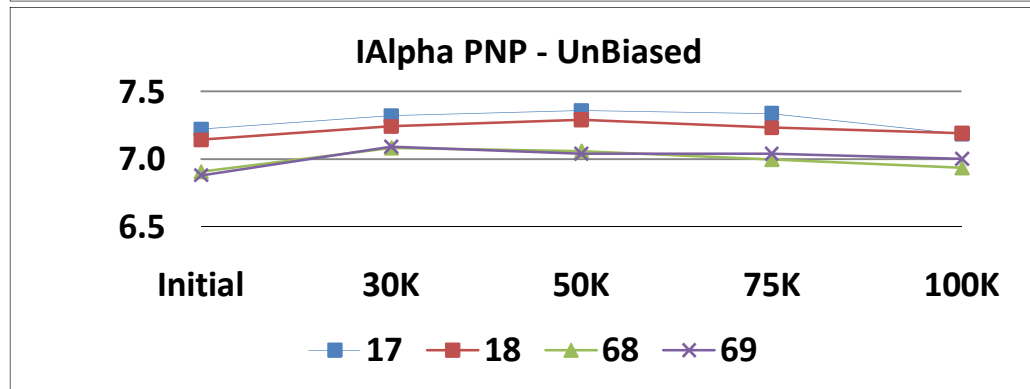
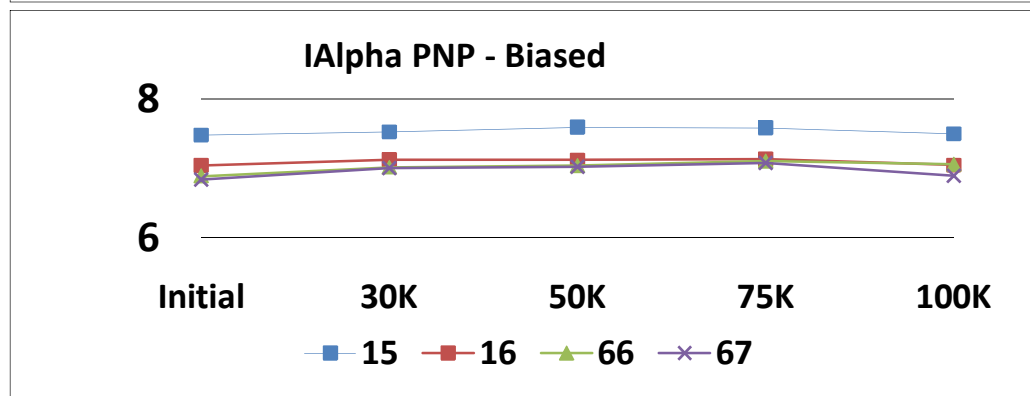
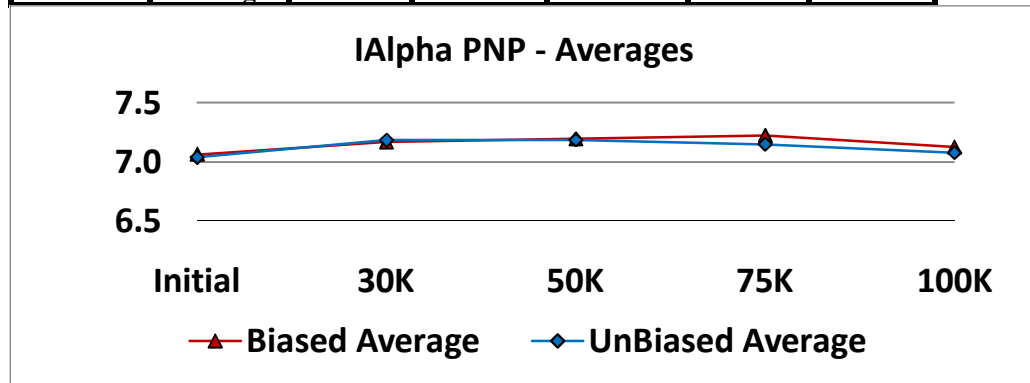
		T# 20.0	Gain PNP				
		SN	Initial	30K	50K	75K	100K
Control	34	1.00283	1.00296	1.00269	1.00280	1.00273	
	64	1.00173	1.00172	1.00172	1.00152	1.00166	
Biased	15	1.00246	1.00277	1.00257	1.00252	1.00256	
	16	1.00267	1.00295	1.00272	1.00272	1.00269	
	66	1.00161	1.00189	1.00168	1.00168	1.00170	
	67	1.00226	1.00249	1.00235	1.00237	1.00225	
	Min	1.00161	1.00189	1.00168	1.00168	1.00170	
	Max	1.00267	1.00295	1.00272	1.00272	1.00269	
	Average	1.00225	1.00253	1.00233	1.00232	1.00230	
UnBiased	17	1.00218	1.00230	1.00217	1.00222	1.00214	
	18	1.00457	1.00479	1.00466	1.00464	1.00463	
	68	1.00230	1.00244	1.00227	1.00219	1.00219	
	69	1.00155	1.00176	1.00155	1.00158	1.00164	
	Min	1.00155	1.00176	1.00155	1.00158	1.00164	
	Max	1.00457	1.00479	1.00466	1.00464	1.00463	
	Average	1.00265	1.00282	1.00266	1.00266	1.00265	



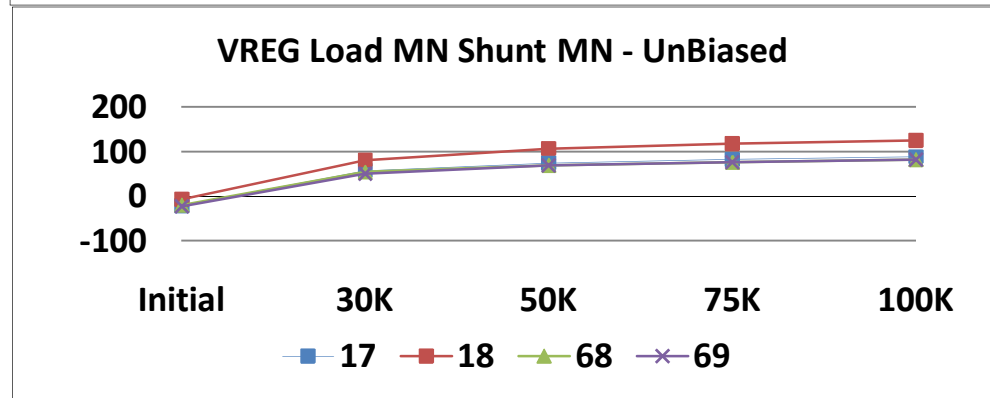
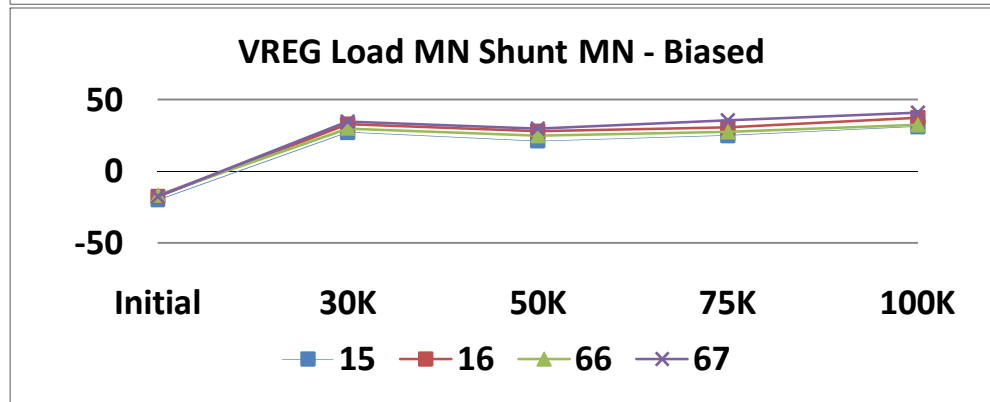
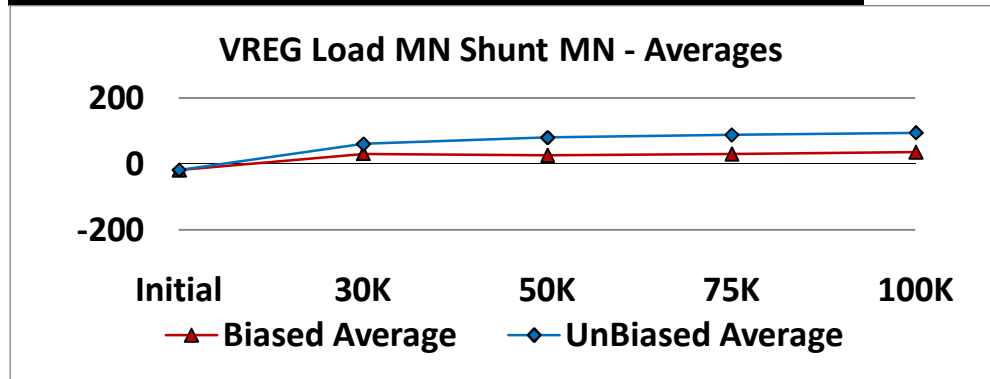
		T# 21.0	Extrap Offset PNP				mV
		SN	Initial	30K	50K	75K	100K
Control	34	0.084	0.161	0.134	0.126	0.131	
	64	0.247	0.299	0.214	0.252	0.234	
Biased	15	0.080	0.278	0.221	-0.786	-0.033	
	16	0.275	0.287	0.258	0.218	0.248	
	66	0.222	0.320	0.179	0.222	0.217	
	67	0.155	0.183	0.169	0.180	0.226	
	Min	0.080	0.183	0.169	-0.786	-0.033	
	Max	0.275	0.320	0.258	0.222	0.248	
	Average	0.183	0.267	0.206	-0.041	0.165	
UnBiased	17	0.027	0.183	0.315	0.267	0.332	
	18	0.240	0.454	0.499	0.618	0.671	
	68	0.277	0.439	0.413	0.423	0.457	
	69	0.134	0.322	0.277	0.260	0.294	
	Min	0.027	0.183	0.277	0.260	0.294	
	Max	0.277	0.454	0.499	0.618	0.671	
	Average	0.170	0.350	0.376	0.392	0.438	



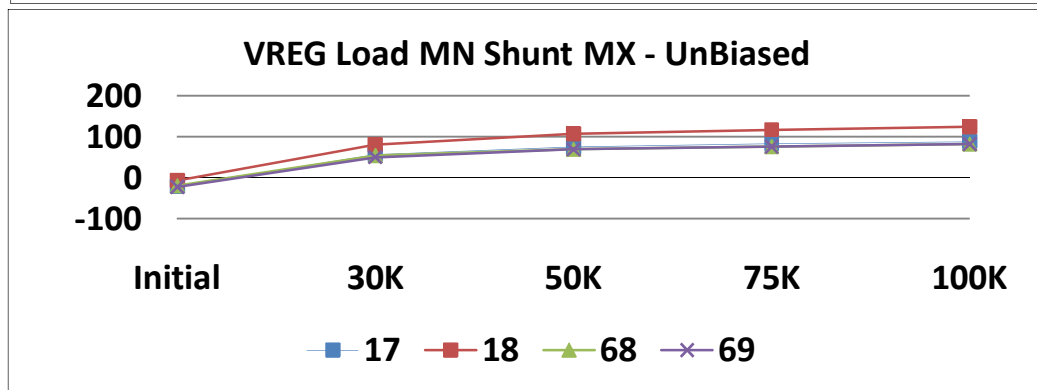
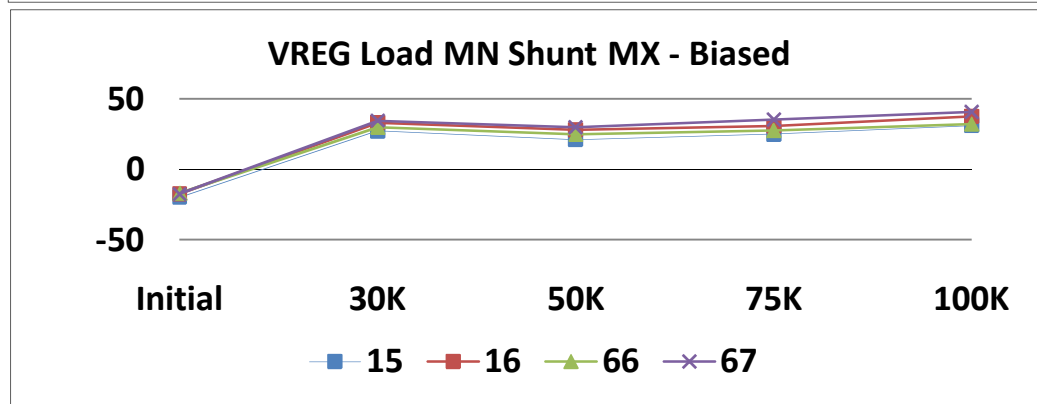
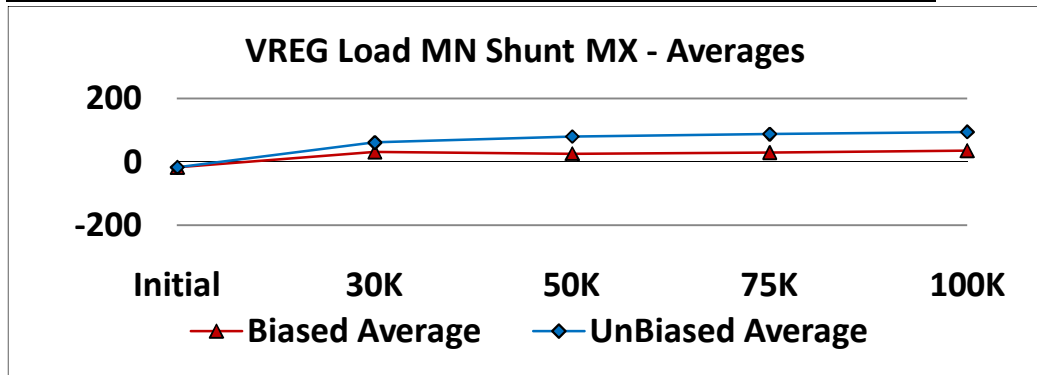
		T# 22.0	IAlpha PNP				uA
		SN	Initial	30K	50K	75K	100K
Control	34	7.071	7.187	7.313	7.236	7.237	
	64	7.156	7.251	7.372	7.314	7.252	
Biased	15	7.481	7.527	7.595	7.585	7.500	
	16	7.045	7.125	7.121	7.130	7.047	
	66	6.888	7.015	7.040	7.105	7.056	
	67	6.837	7.002	7.020	7.077	6.893	
	Min	6.837	7.002	7.020	7.077	6.893	
	Max	7.481	7.527	7.595	7.585	7.500	
	Average	7.063	7.167	7.194	7.225	7.124	
UnBiased	17	7.220	7.321	7.359	7.335	7.183	
	18	7.140	7.240	7.291	7.230	7.189	
	68	6.904	7.080	7.058	6.995	6.933	
	69	6.879	7.092	7.038	7.037	7.001	
	Min	6.879	7.080	7.038	6.995	6.933	
	Max	7.220	7.321	7.359	7.335	7.189	
	Average	7.036	7.183	7.186	7.149	7.076	



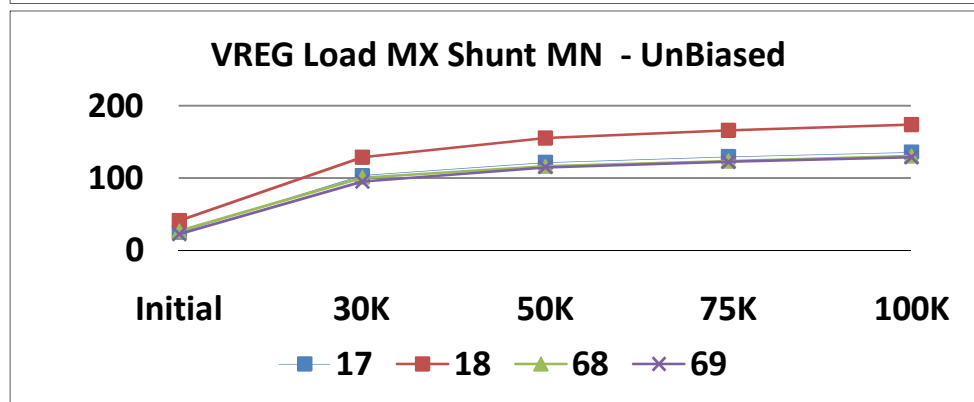
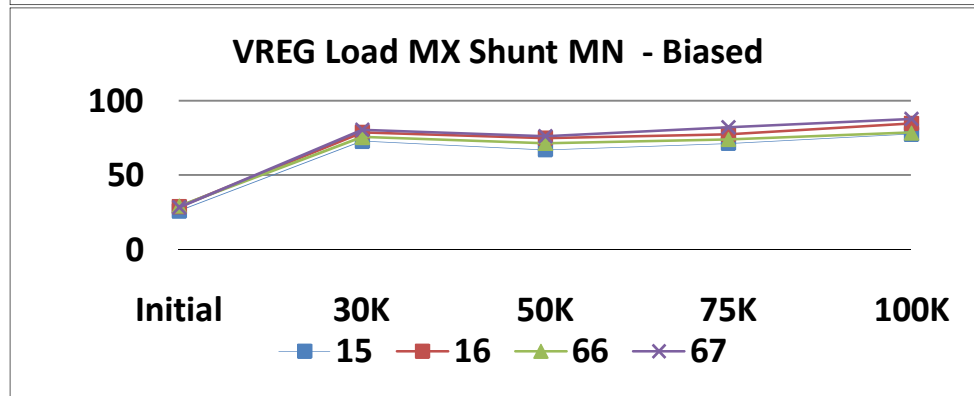
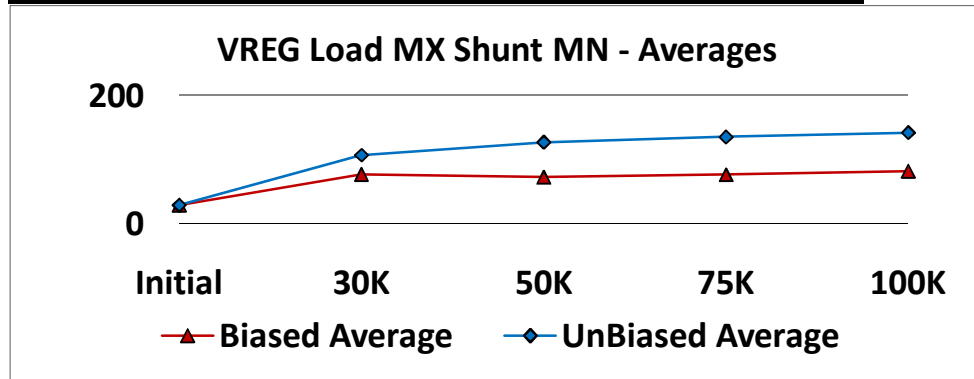
T# 23.0		VREG Load MN Shunt MN				mV
SN		Initial	30K	50K	75K	100K
Control	34	-19.497	-20.696	-19.578	-20.408	-19.280
	64	-24.508	-25.906	-24.841	-25.221	-24.824
Biased	15	-19.773	27.108	21.070	24.944	31.248
	16	-17.441	32.797	27.913	30.628	37.494
	66	-16.789	29.850	24.893	27.496	32.365
	67	-17.543	34.570	29.790	35.475	40.912
	Min	-19.773	27.108	21.070	24.944	31.248
	Max	-16.789	34.570	29.790	35.475	40.912
	Average	-17.887	31.081	25.916	29.636	35.505
UnBiased	17	-21.242	56.991	74.643	82.206	88.244
	18	-6.464	81.077	106.804	117.195	124.539
	68	-19.998	54.079	68.899	75.890	82.434
	69	-22.967	50.002	68.943	75.947	82.187
	Min	-22.967	50.002	68.899	75.890	82.187
	Max	-6.464	81.077	106.804	117.195	124.539
	Average	-17.667	60.537	79.822	87.809	94.351



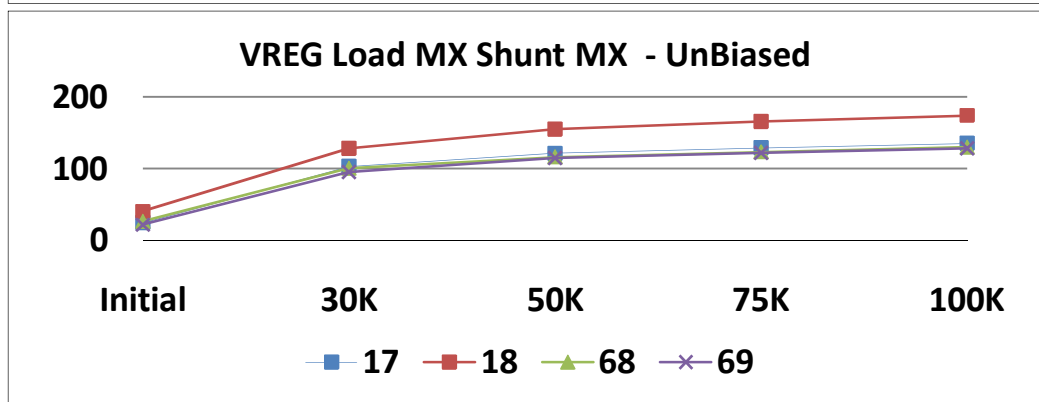
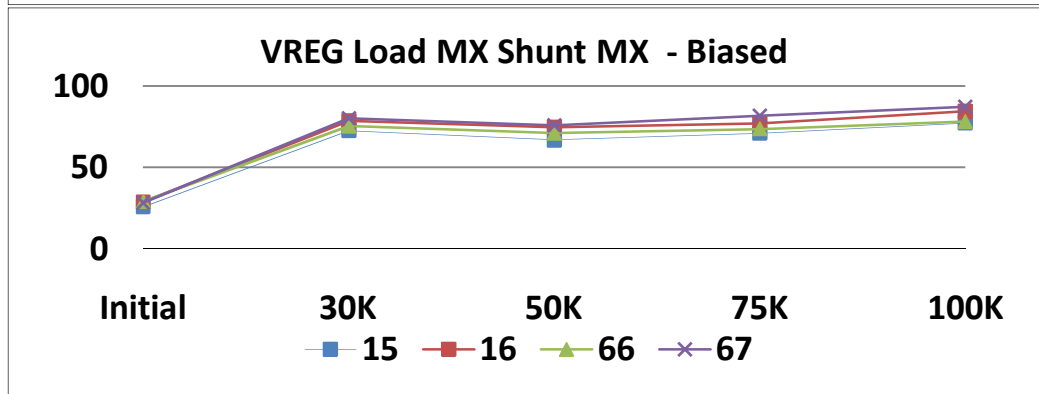
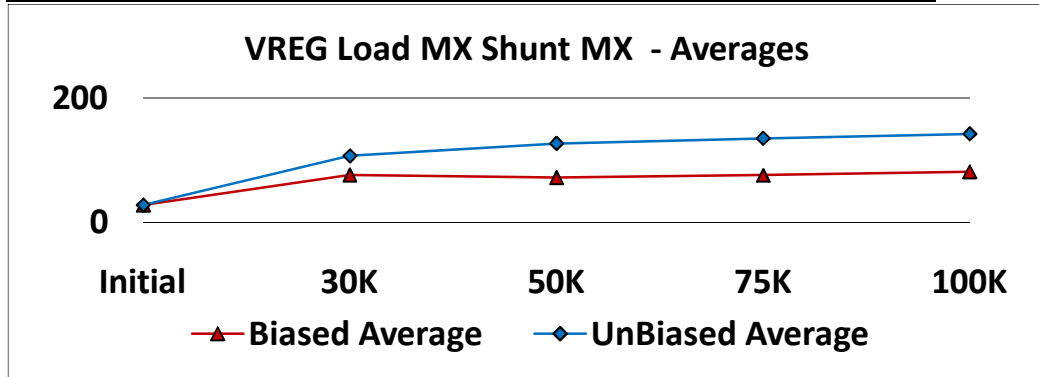
T# 24.0		VREG Load MN Shunt MX				mV
SN		Initial	30K	50K	75K	100K
Control	34	-19.611	-20.833	-19.765	-20.634	-19.471
	64	-24.710	-26.122	-25.088	-25.498	-25.017
Biased	15	-19.954	26.978	20.817	24.689	31.040
	16	-17.580	32.709	27.776	30.381	37.224
	66	-16.995	29.729	24.735	27.424	32.139
	67	-17.792	34.439	29.545	35.160	40.707
	Min	-19.954	26.978	20.817	24.689	31.040
	Max	-16.995	34.439	29.545	35.160	40.707
	Average	-18.080	30.964	25.718	29.413	35.278
UnBiased	17	-21.507	56.851	74.467	82.004	88.128
	18	-6.650	80.960	106.698	117.037	124.362
	68	-20.228	53.950	68.712	75.604	82.232
	69	-23.156	49.801	68.662	75.785	82.079
	Min	-23.156	49.801	68.662	75.604	82.079
	Max	-6.650	80.960	106.698	117.037	124.362
	Average	-17.886	60.391	79.635	87.607	94.200



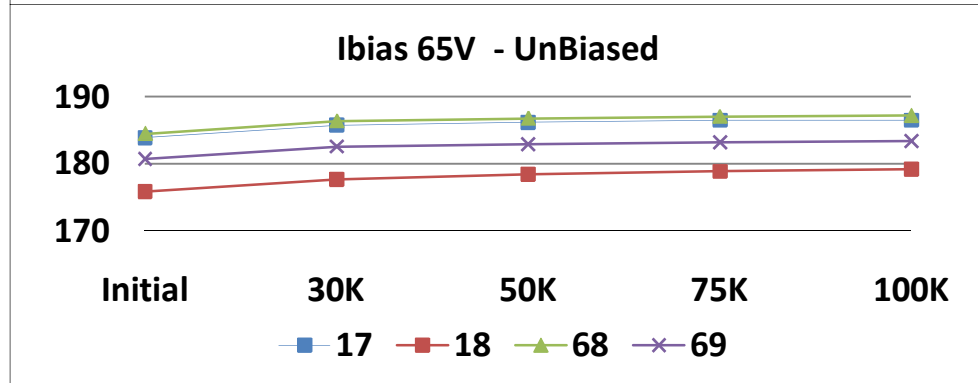
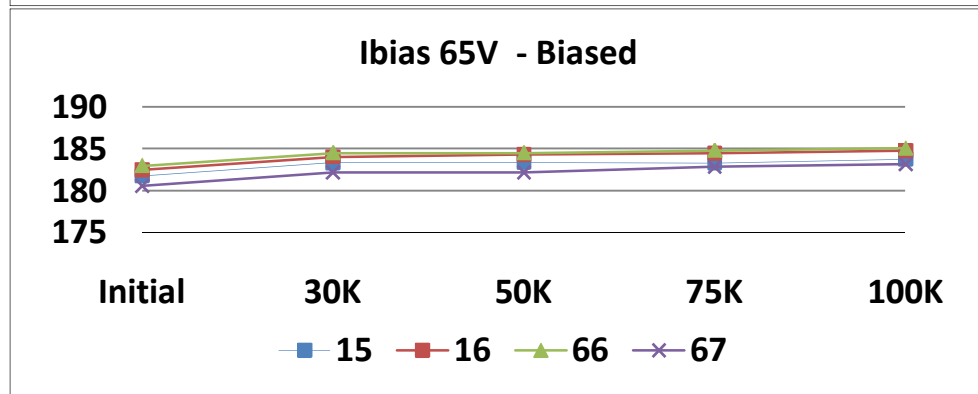
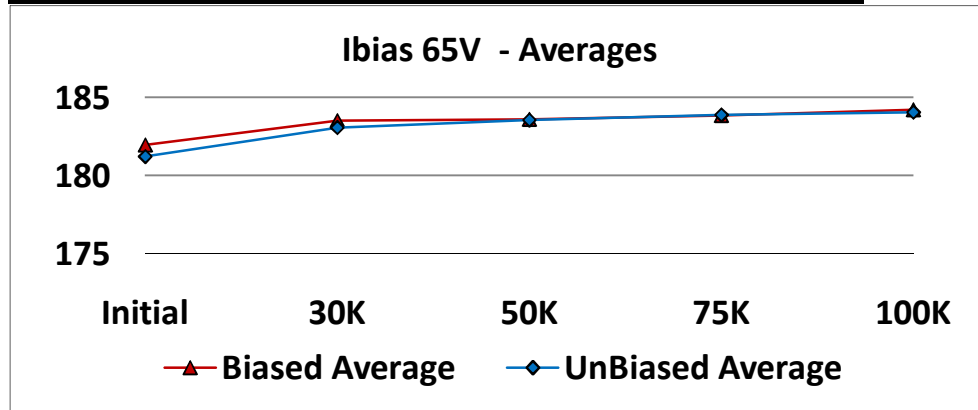
T# 25.0		VREG Load MX Shunt MN				mV
SN		Initial	30K	50K	75K	100K
Control	34	27.162	26.056	27.562	26.695	27.845
	64	21.580	20.314	21.741	21.349	21.651
Biased	15	26.051	72.827	67.056	71.205	77.436
	16	29.050	78.872	74.949	77.506	84.522
	66	29.164	75.526	71.263	74.007	78.491
	67	28.643	80.324	76.228	82.077	87.651
	Min	26.051	72.827	67.056	71.205	77.436
	Max	29.164	80.324	76.228	82.077	87.651
	Average	28.227	76.887	72.374	76.199	82.025
UnBiased	17	24.763	103.328	121.661	129.453	135.610
	18	40.711	128.751	155.759	166.230	174.388
	68	26.412	100.862	116.368	123.555	130.356
	69	22.008	95.172	115.066	122.262	128.784
	Min	22.008	95.172	115.066	122.262	128.784
	Max	40.711	128.751	155.759	166.230	174.388
	Average	28.473	107.028	127.213	135.375	142.285



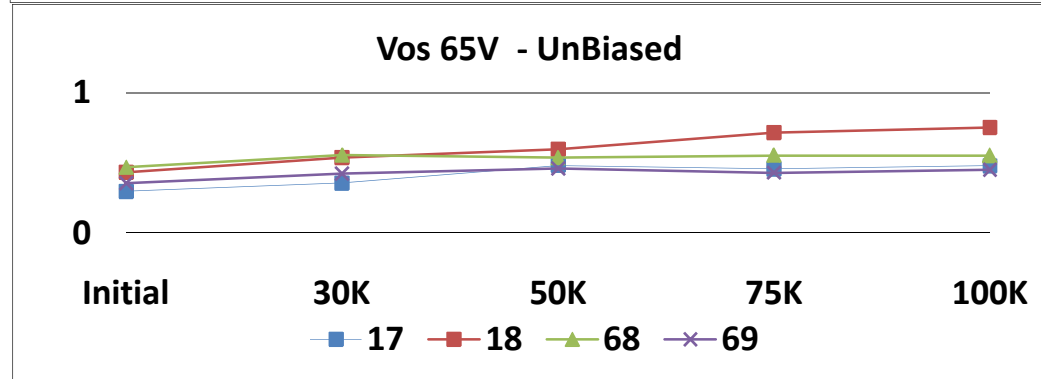
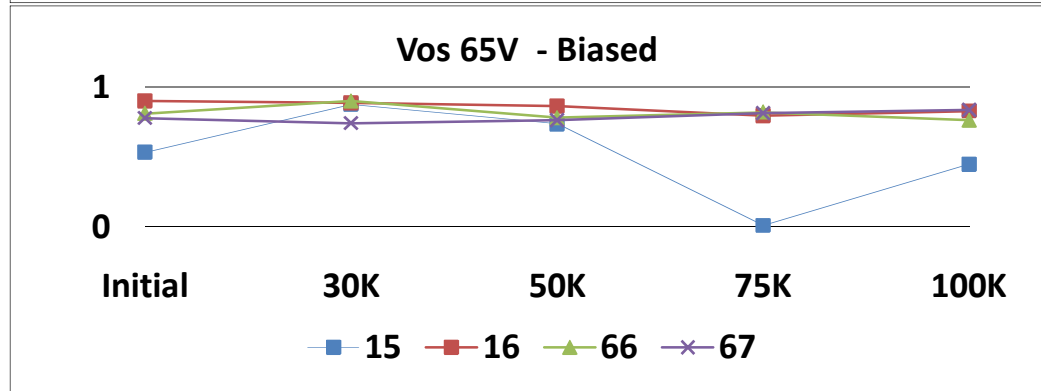
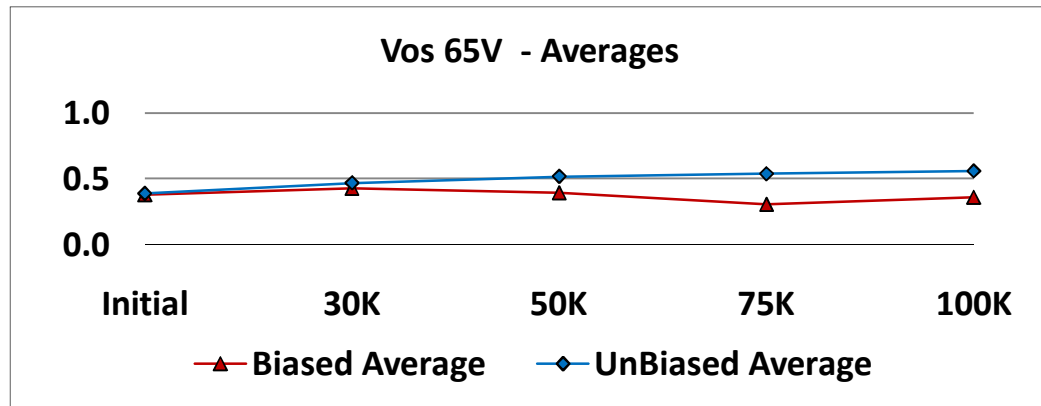
T# 26.0		VREG Load MX Shunt MX				mV
SN		Initial	30K	50K	75K	100K
Control	34	26.882	25.691	27.197	26.391	27.457
	64	21.241	19.940	21.332	21.029	21.238
Biased	15	25.746	72.517	66.744	70.842	77.229
	16	28.697	78.608	74.548	77.101	84.283
	66	28.842	75.281	70.922	73.610	78.199
	67	28.333	79.991	75.805	81.759	87.255
	Min	25.746	72.517	66.744	70.842	77.229
	Max	28.842	79.991	75.805	81.759	87.255
	Average	27.904	76.599	72.005	75.828	81.741
UnBiased	17	24.441	103.031	121.323	129.071	135.261
	18	40.358	128.369	155.271	165.850	174.106
	68	26.043	100.526	116.127	123.217	129.978
	69	21.648	94.852	114.771	121.933	128.458
	Min	21.648	94.852	114.771	121.933	128.458
	Max	40.358	128.369	155.271	165.850	174.106
	Average	28.122	106.694	126.873	135.018	141.951



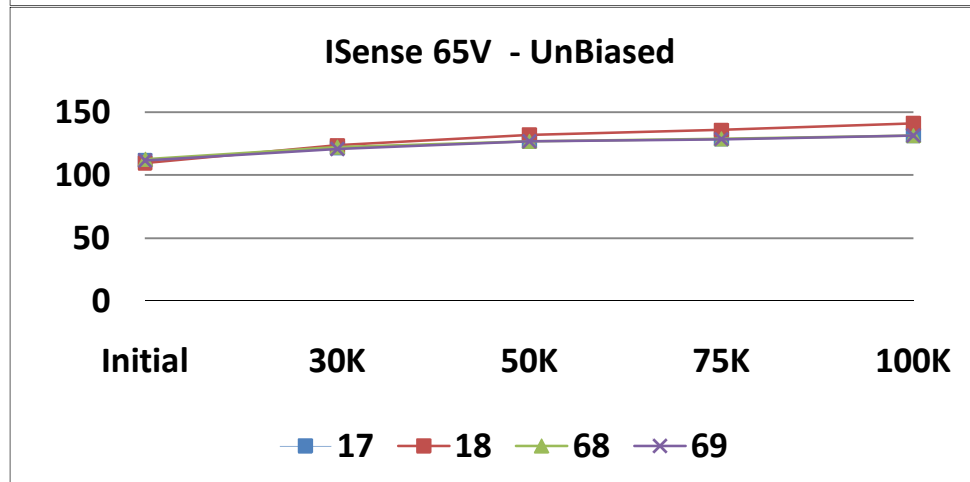
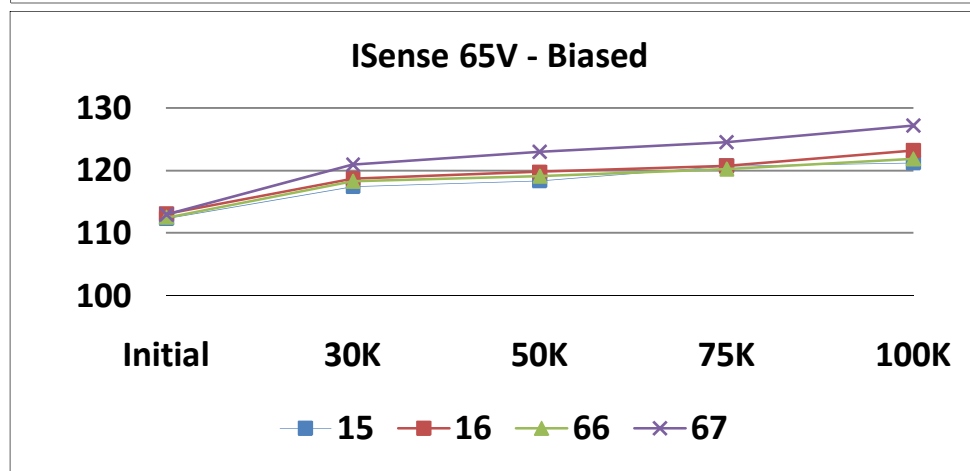
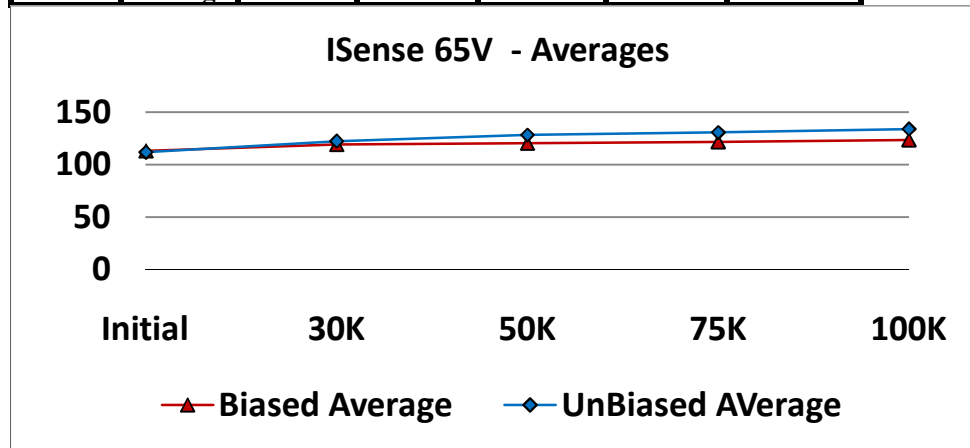
		T# 27.0	Ibias 65V				uA
		SN	Initial	30K	50K	75K	100K
Control	34	181.451	181.591	181.504	181.470	181.42846	
	64	184.509	184.565	184.699	184.612	184.613	
Biased	15	181.755	183.346	183.386	183.298	183.762	
	16	182.491	184.040	184.311	184.465	184.792	
	66	182.975	184.492	184.500	184.770	185.044	
	67	180.599	182.190	182.187	182.825	183.194	
	Min	180.599	182.190	182.187	182.825	183.194	
	Max	182.975	184.492	184.500	184.770	185.044	
	Average	181.955	183.517	183.596	183.840	184.198	
UnBiased	17	183.857	185.732	186.129	186.452	186.452	
	18	175.838	177.586	178.361	178.821	179.116	
	68	184.446	186.321	186.718	186.988	187.157	
	69	180.652	182.537	182.902	183.162	183.373	
	Min	175.838	177.586	178.361	178.821	179.116	
	Max	184.446	186.321	186.718	186.988	187.157	
	Average	181.198	183.044	183.527	183.855	184.024	



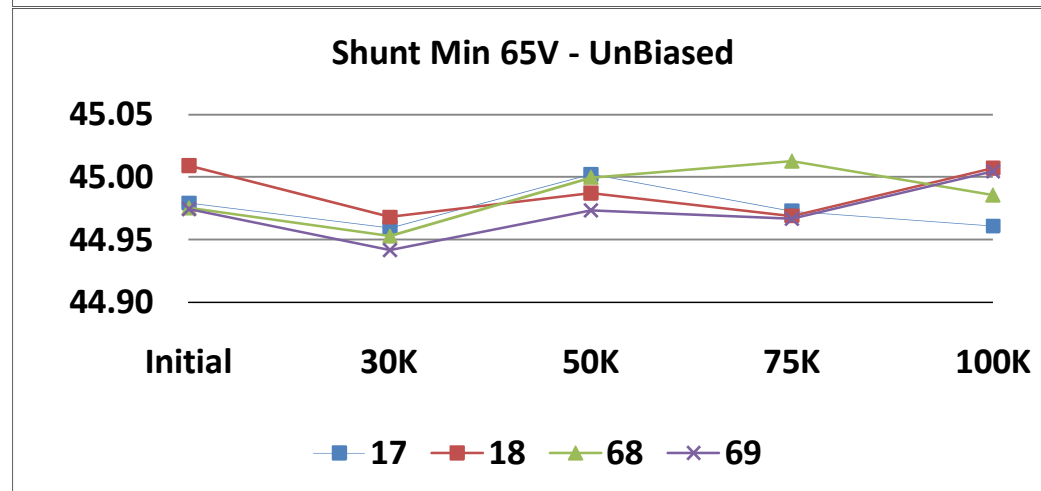
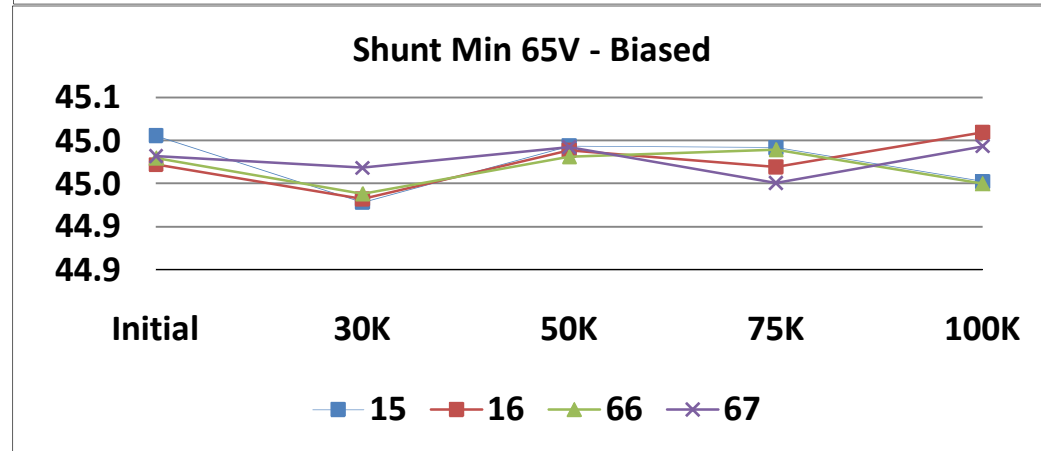
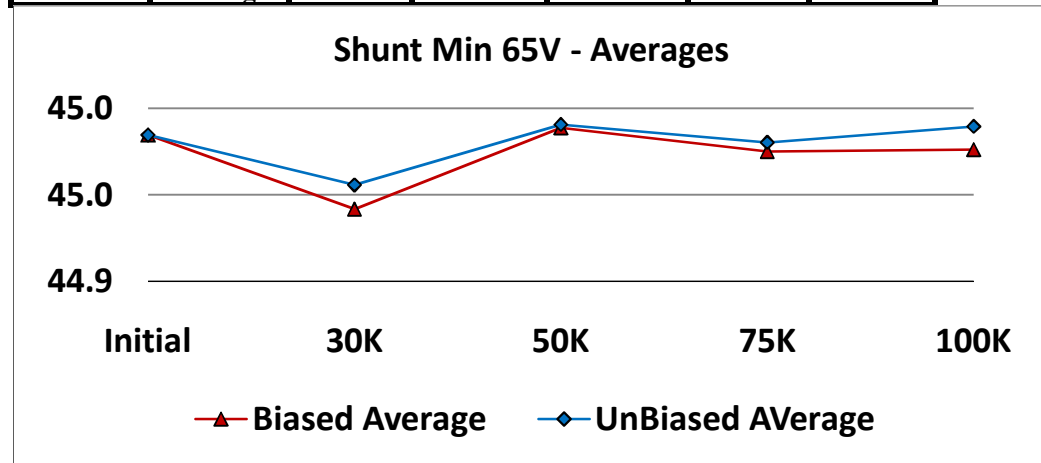
		T# 28.0	Vos 65V				mV
		SN	Initial	30K	50K	75K	100K
Control	34	0.3434	0.3571	0.3533	0.3433	0.3428	
	64	0.4096	0.4219	0.4174	0.4089	0.4080	
Biased	15	0.2664	0.4378	0.3680	0.0049	0.2235	
	16	0.4501	0.4435	0.4316	0.3974	0.4138	
	66	0.4040	0.4485	0.3889	0.4093	0.3798	
	67	0.3888	0.3704	0.3811	0.4064	0.4174	
	Min	0.2664	0.3704	0.3680	0.0049	0.2235	
	Max	0.4501	0.4485	0.4316	0.4093	0.4174	
	Average	0.3773	0.4250	0.3924	0.3045	0.3586	
UnBiased	17	0.2945	0.3543	0.4793	0.4541	0.4783	
	18	0.4313	0.5374	0.5959	0.7122	0.7485	
	68	0.4678	0.5533	0.5336	0.5516	0.5511	
	69	0.3521	0.4224	0.4586	0.4283	0.4484	
	Min	0.2945	0.3543	0.4586	0.4283	0.4484	
	Max	0.4678	0.5533	0.5959	0.7122	0.7485	
	Average	0.3864	0.4668	0.5169	0.5365	0.5566	



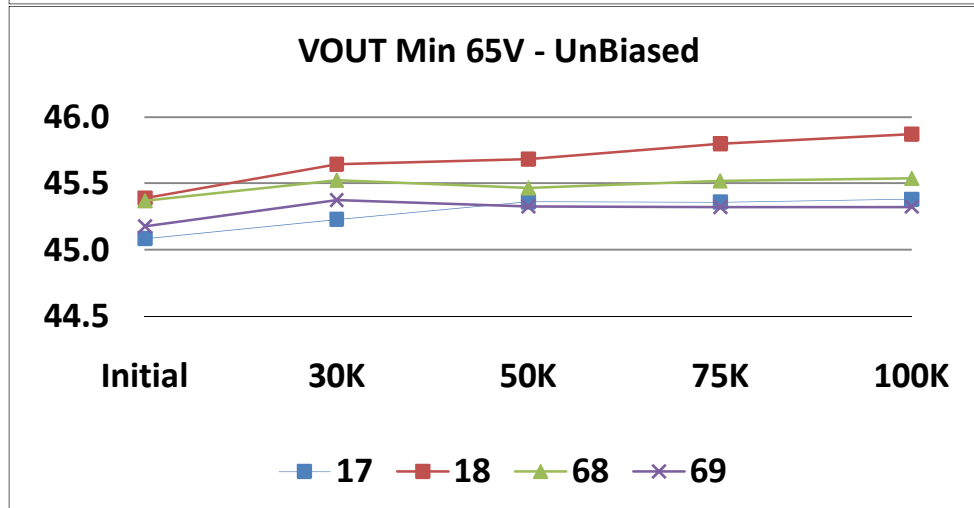
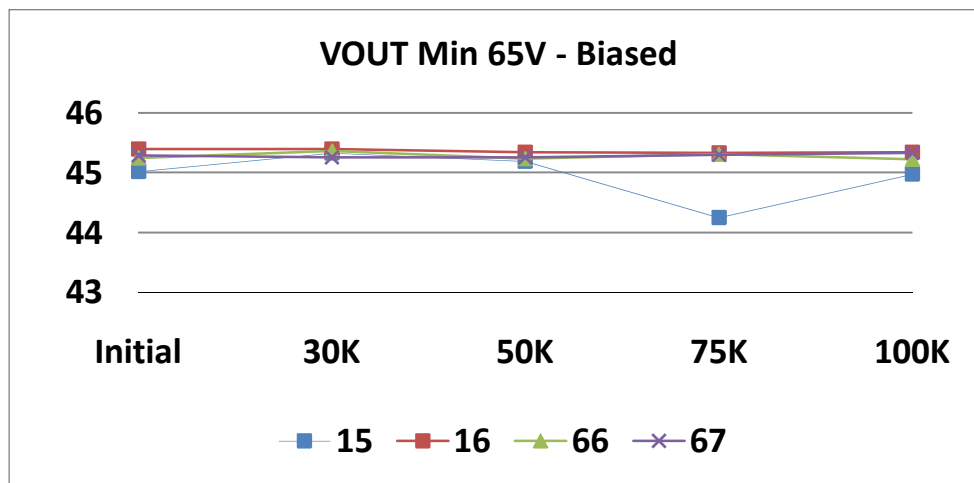
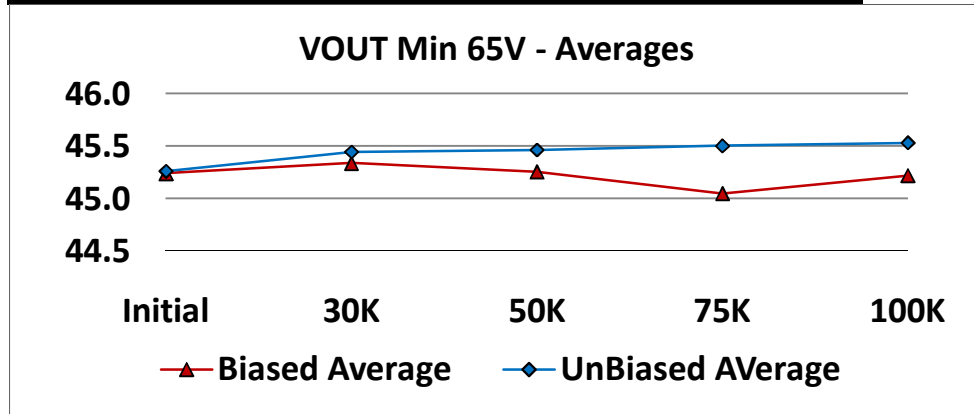
	T# 29.0	ISense 65V				nA
		SN	Initial	30K	50K	
Control	34	108.637	108.149	109.123	109.168	109.18605
	64	112.696	112.130	112.944	113.075	113.115
Biased	15	112.283	117.423	118.366	120.703	121.242
	16	113.063	118.672	119.770	120.746	123.237
	66	112.489	118.268	119.110	120.262	121.914
	67	112.921	120.976	122.996	124.503	127.178
	Min	112.283	117.423	118.366	120.262	121.242
	Max	113.063	120.976	122.996	124.503	127.178
	Average	112.689	118.835	120.060	121.553	123.393
UnBiased	17	111.641	121.877	126.752	128.787	131.459
	18	109.571	123.499	131.752	135.674	141.041
	68	112.505	122.410	126.907	128.879	131.564
	69	111.558	120.686	126.583	128.524	131.181
	Min	109.571	120.686	126.583	128.524	131.181
	Max	112.505	123.499	131.752	135.674	141.041
	Average	111.319	122.118	127.998	130.466	133.811



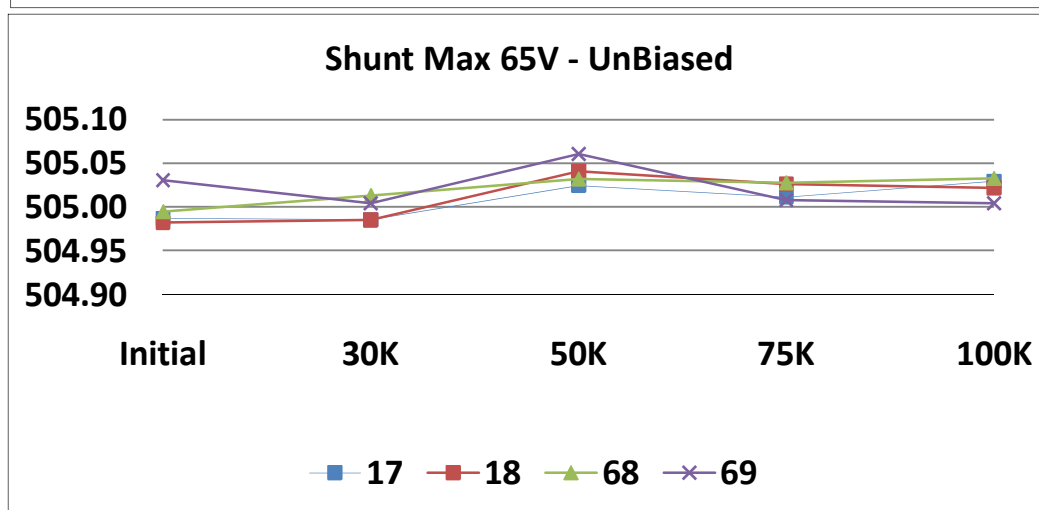
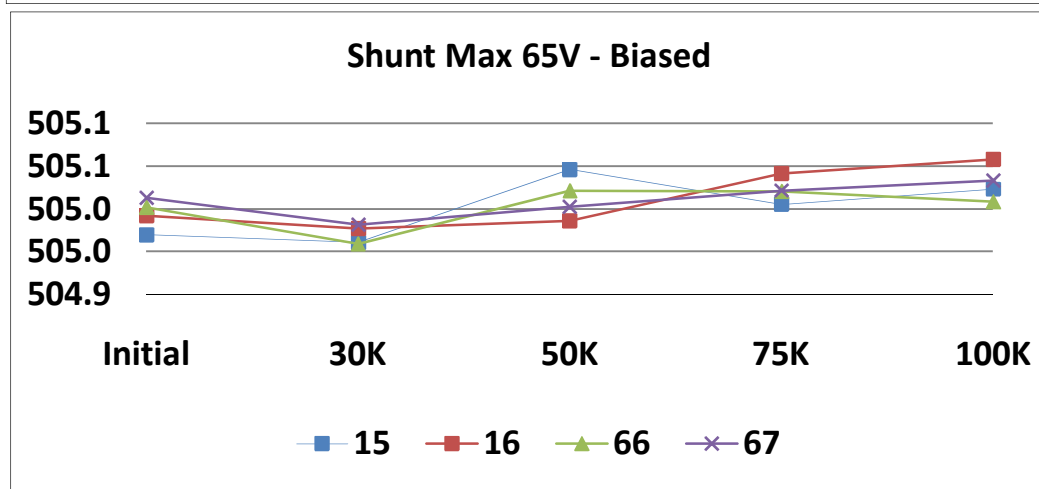
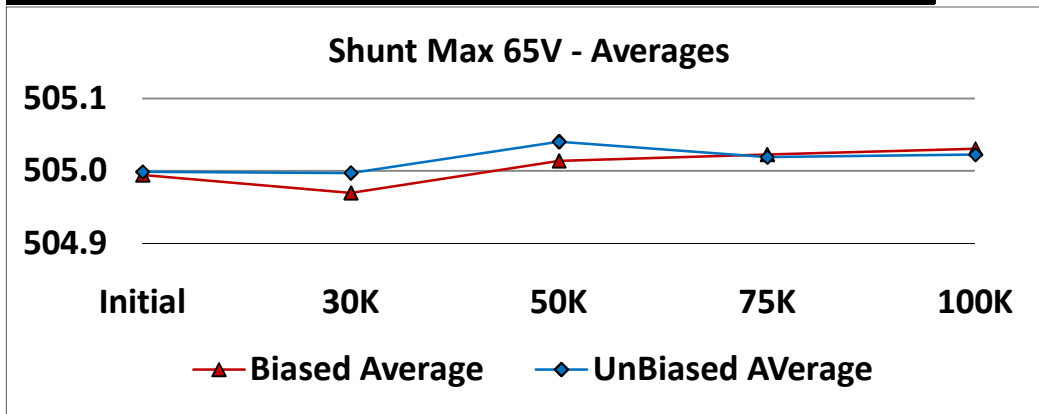
	T# 30.0	Shunt Min 65V				mV
		SN	Initial	30K	50K	
Control	34	44.962	44.893	44.956	45.014	44.950
	64	44.969	44.943	44.965	45.003	45.002
Biased	15	45.005	44.928	44.993	44.991	44.952
	16	44.972	44.932	44.988	44.969	45.010
	66	44.979	44.938	44.981	44.989	44.950
	67	44.982	44.968	44.992	44.950	44.993
	Min	44.972	44.928	44.981	44.950	44.950
	Max	45.005	44.968	44.993	44.991	45.010
Average	44.985	44.942	44.989	44.975	44.976	
UnBiased	17	44.979	44.959	45.002	44.973	44.961
	18	45.009	44.968	44.987	44.969	45.007
	68	44.976	44.953	45.000	45.013	44.986
	69	44.974	44.942	44.974	44.967	45.005
	Min	44.974	44.942	44.974	44.967	44.961
	Max	45.009	44.968	45.002	45.013	45.007
	Average	44.985	44.956	44.991	44.980	44.990



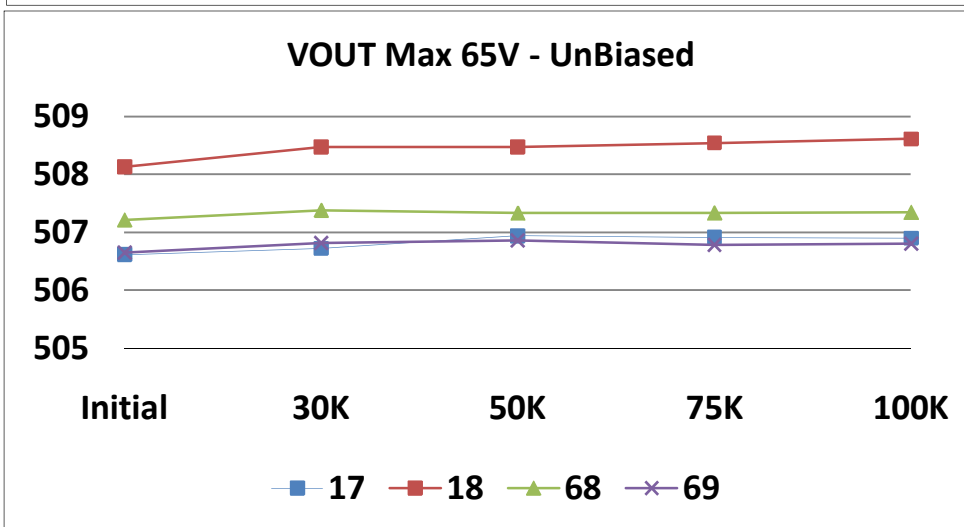
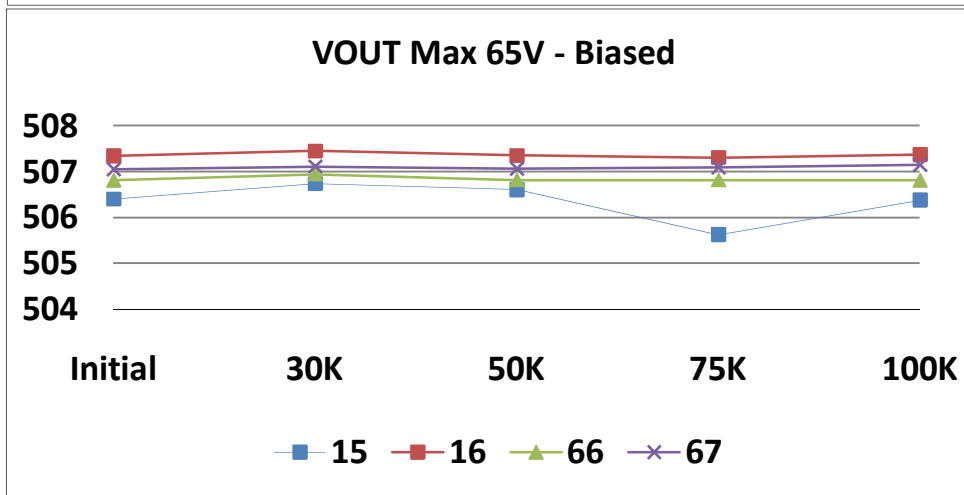
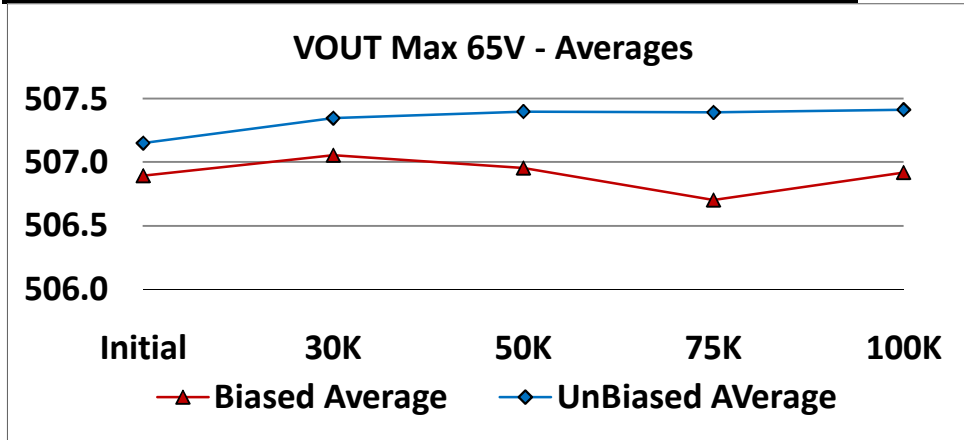
	T# 31.0	VOUT Min 65V				mV
	SN	Initial	30K	50K	75K	100K
Control	34	45.200	45.267	45.206	45.232	45.221
	64	45.295	45.349	45.273	45.325	45.276
Biased	15	45.019	45.329	45.188	44.246	44.976
	16	45.397	45.396	45.338	45.333	45.344
	66	45.251	45.360	45.234	45.306	45.225
	67	45.285	45.254	45.252	45.303	45.327
	Min	45.019	45.254	45.188	44.246	44.976
	Max	45.397	45.396	45.338	45.333	45.344
	Average	45.238	45.335	45.253	45.047	45.218
UnBiased	17	45.084	45.228	45.361	45.360	45.381
	18	45.391	45.643	45.685	45.798	45.870
	68	45.369	45.525	45.467	45.519	45.540
	69	45.179	45.373	45.328	45.320	45.324
	Min	45.084	45.228	45.328	45.320	45.324
	Max	45.391	45.643	45.685	45.798	45.870
	Average	45.256	45.442	45.460	45.500	45.529



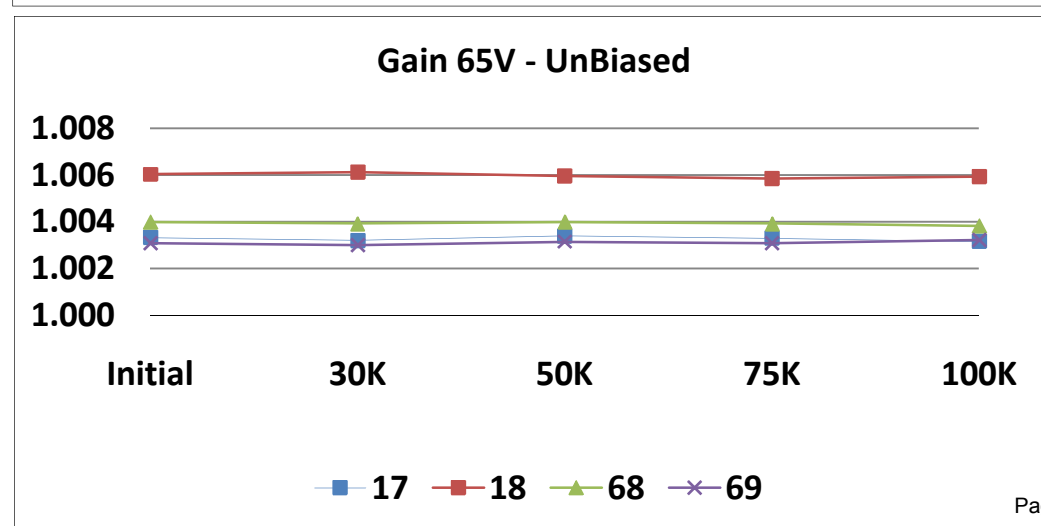
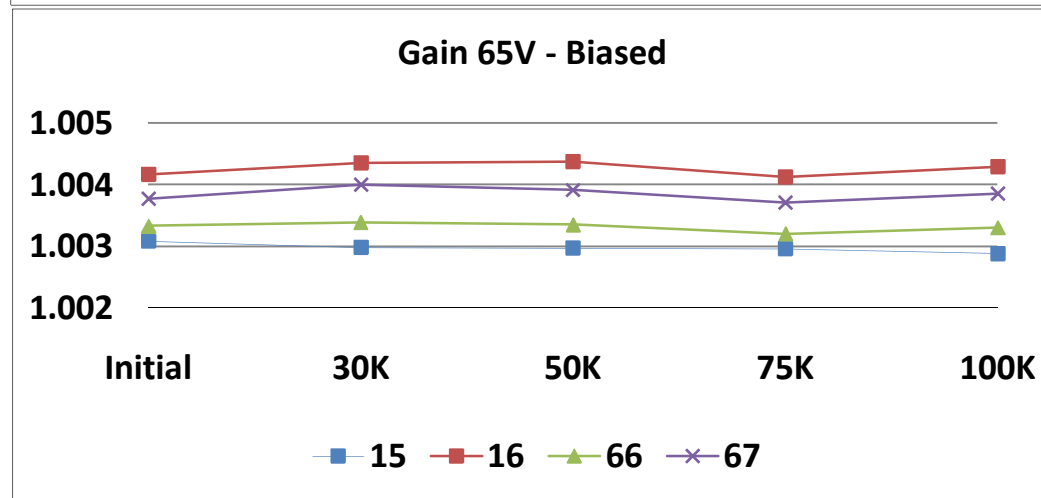
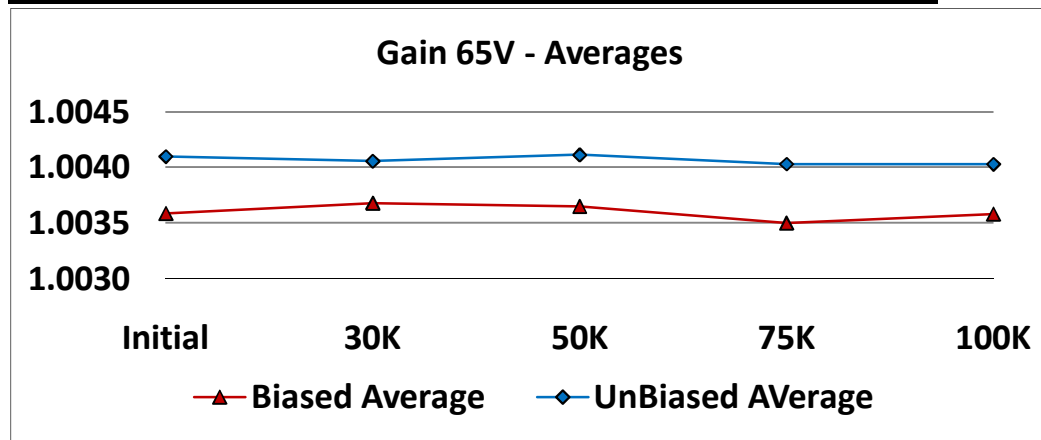
T# 32.0		Shunt Max 65V				mV
SN		Initial	30K	50K	75K	100K
Control	34	504.992	504.985	505.020	505.028	505.0254
	64	505.006	504.973	505.031	504.990	505.030
Biased	15	504.969	504.960	505.046	505.005	505.023
	16	504.992	504.977	504.986	505.041	505.058
	66	505.002	504.959	505.021	505.020	505.008
	67	505.013	504.982	505.002	505.021	505.033
	Min	504.969	504.959	504.986	505.005	505.008
	Max	505.013	504.982	505.046	505.041	505.058
	Average	504.994	504.969	505.014	505.022	505.030
UnBiased	17	504.987	504.985	505.025	505.011	505.029
	18	504.982	504.985	505.041	505.026	505.022
	68	504.994	505.013	505.032	505.028	505.033
	69	505.030	505.004	505.061	505.008	505.004
	Min	504.982	504.985	505.025	505.008	505.004
	Max	505.030	505.013	505.061	505.028	505.033
Average	504.998	504.997	505.040	505.018	505.022	



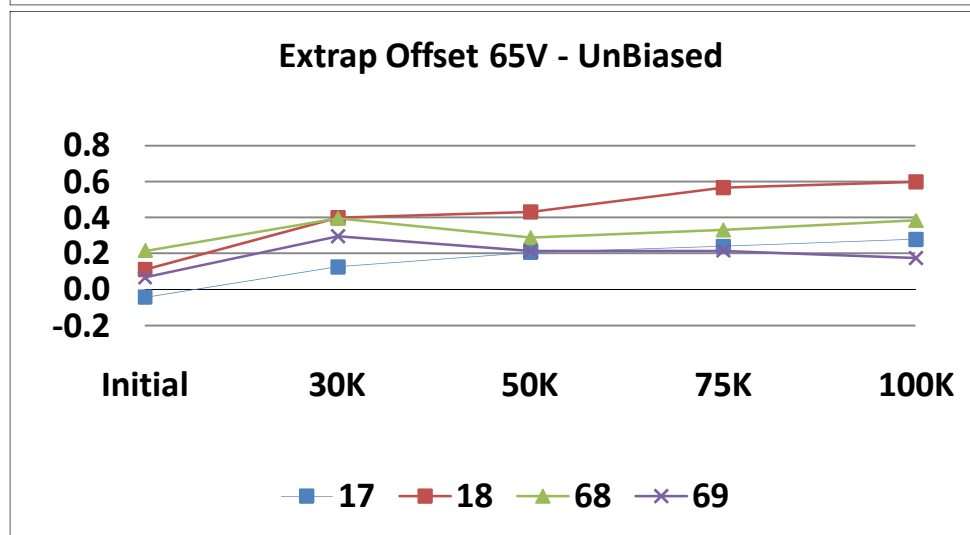
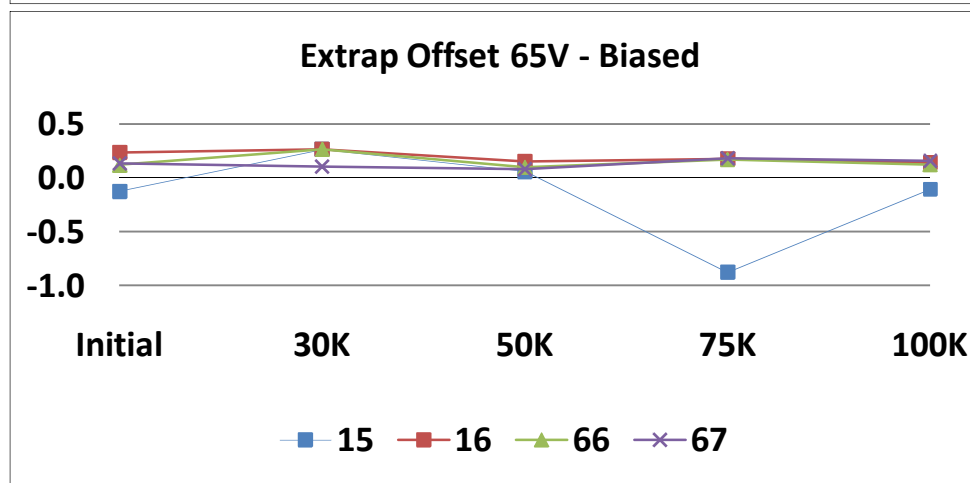
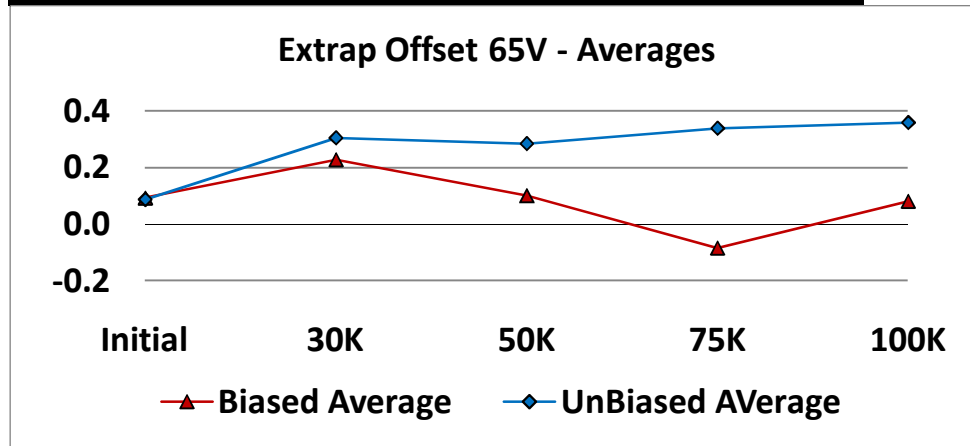
T# 33.0		VOUT Max 65V				
SN		Initial	30K	50K	75K	100K
Control	34	507.021	507.094	507.121	507.077	507.084
	64	506.861	506.933	506.892	506.889	506.905
Biased	15	506.399	506.733	506.604	505.622	506.373
	16	507.333	507.443	507.346	507.302	507.366
	66	506.803	506.941	506.812	506.811	506.804
	67	507.049	507.108	507.062	507.082	507.138
	Min	506.399	506.733	506.604	505.622	506.373
	Max	507.333	507.443	507.346	507.302	507.366
	Average	506.896	507.056	506.956	506.704	506.920
UnBiased	17	506.613	506.721	506.937	506.914	506.898
	18	508.131	508.475	508.469	508.543	508.610
	68	507.217	507.383	507.333	507.335	507.346
	69	506.650	506.816	506.862	506.778	506.805
	Min	506.613	506.721	506.862	506.778	506.805
	Max	508.131	508.475	508.469	508.543	508.610
	Average	507.153	507.349	507.400	507.392	507.415



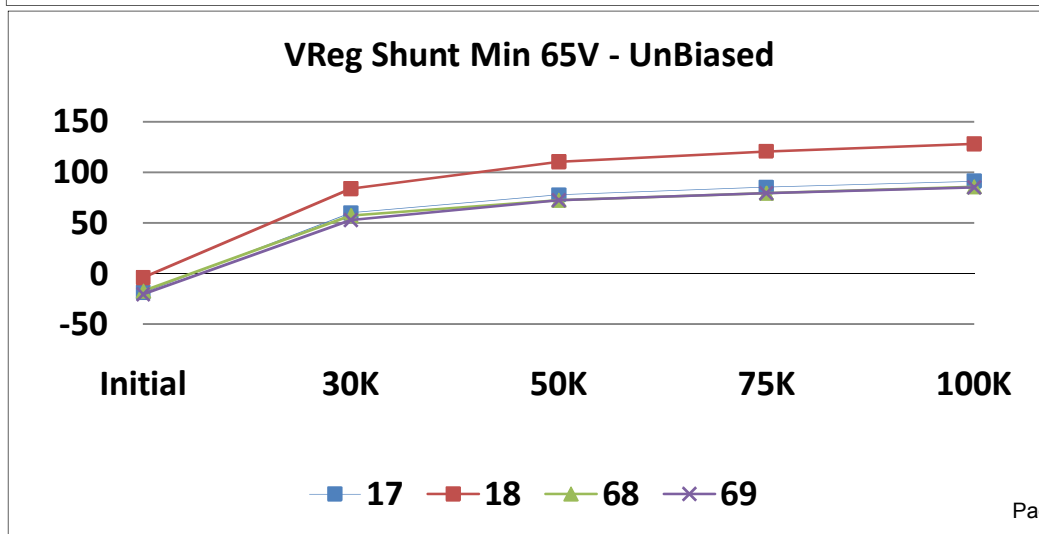
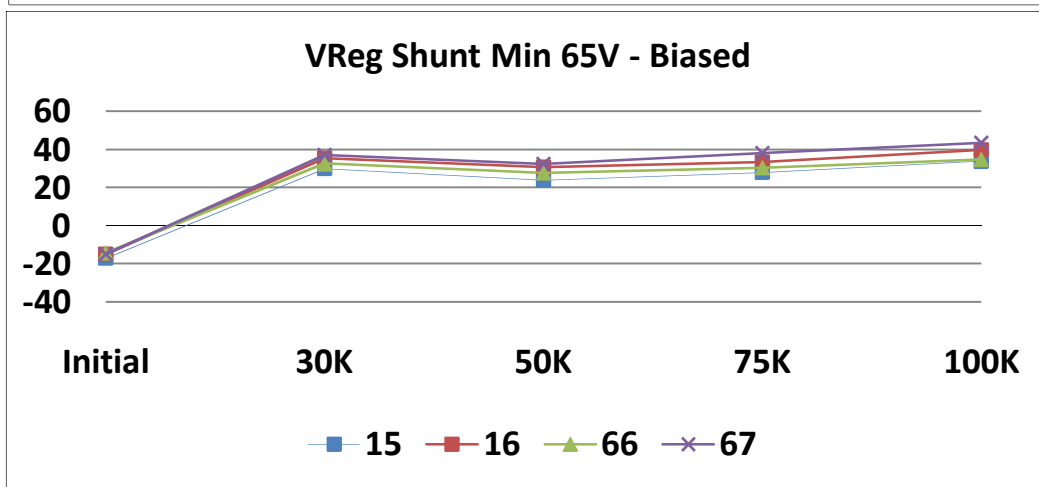
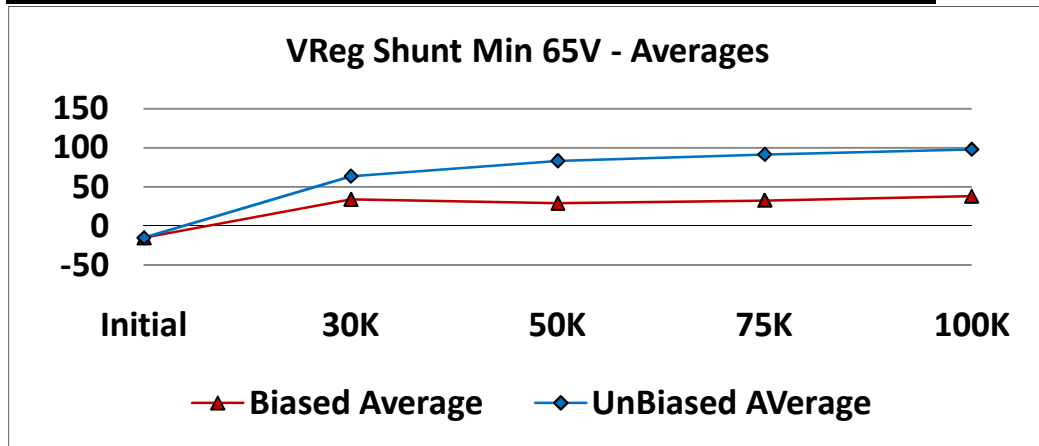
		Gain 65V				
T# 34.0		Initial	30K	50K	75K	100K
Control	34	1.00389	1.00377	1.00402	1.00398	1.00388
	64	1.00333	1.00338	1.00337	1.00343	1.00348
Biased	15	1.00308	1.00298	1.00297	1.00296	1.00288
	16	1.00416	1.00435	1.00437	1.00412	1.00429
	66	1.00333	1.00339	1.00335	1.00320	1.00330
	67	1.00377	1.00400	1.00391	1.00371	1.00385
	Min	1.00308	1.00298	1.00297	1.00296	1.00288
	Max	1.00416	1.00435	1.00437	1.00412	1.00429
	Average	1.00359	1.00368	1.00365	1.00350	1.00358
UnBiased	17	1.00331	1.00319	1.00338	1.00329	1.00315
	18	1.00602	1.00612	1.00594	1.00584	1.00592
	68	1.00398	1.00391	1.00399	1.00391	1.00382
	69	1.00308	1.00300	1.00314	1.00308	1.00322
	Min	1.00308	1.00300	1.00314	1.00308	1.00315
	Max	1.00602	1.00612	1.00594	1.00584	1.00592
		Average	1.00410	1.00406	1.00411	1.00403



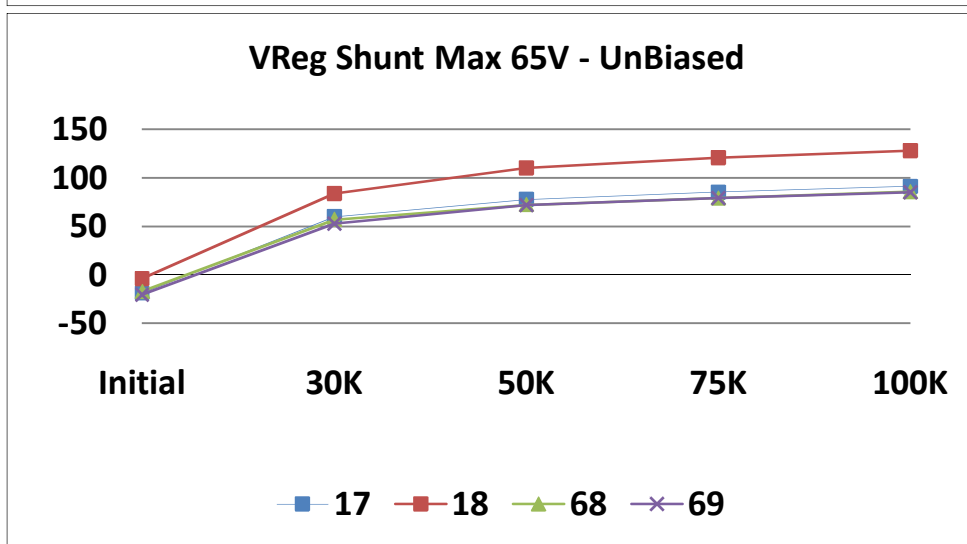
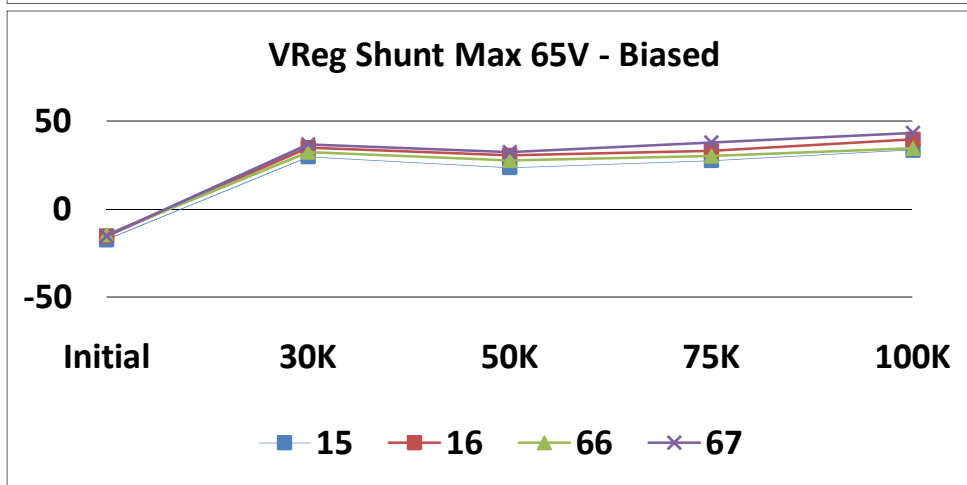
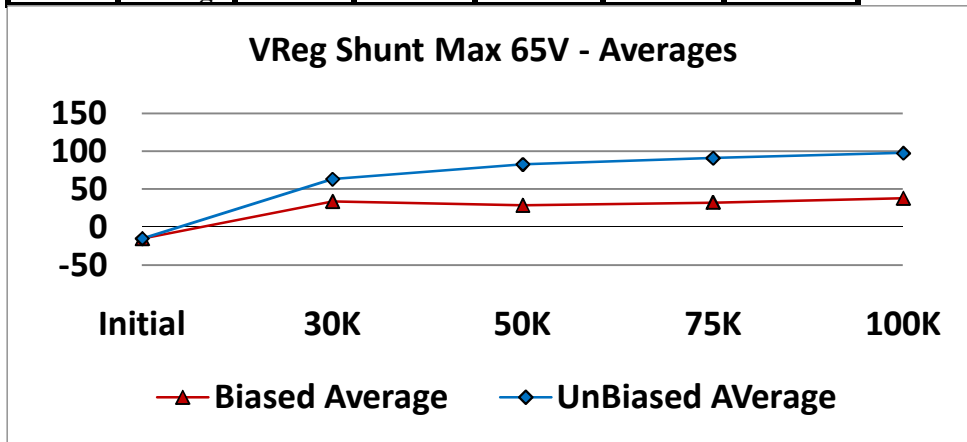
T# 35.0		Extrap Offset 65V					mV
SN		Initial	30K	50K	75K	100K	
Control	34	0.063	0.204	0.069	0.039	0.097	
	64	0.176	0.254	0.157	0.168	0.118	
Biased	15	-0.124	0.267	0.061	-0.878	-0.106	
	16	0.238	0.269	0.153	0.178	0.141	
	66	0.122	0.270	0.102	0.173	0.127	
	67	0.134	0.106	0.084	0.185	0.161	
	Min	-0.124	0.106	0.061	-0.878	-0.106	
	Max	0.238	0.270	0.153	0.185	0.161	
	Average	0.092	0.228	0.100	-0.085	0.081	
UnBiased	17	-0.044	0.125	0.206	0.239	0.278	
	18	0.111	0.400	0.430	0.567	0.597	
	68	0.215	0.396	0.287	0.331	0.383	
	69	0.066	0.296	0.213	0.215	0.174	
	Min	-0.044	0.125	0.206	0.215	0.174	
	Max	0.215	0.400	0.430	0.567	0.597	
	Average	0.087	0.304	0.284	0.338	0.358	



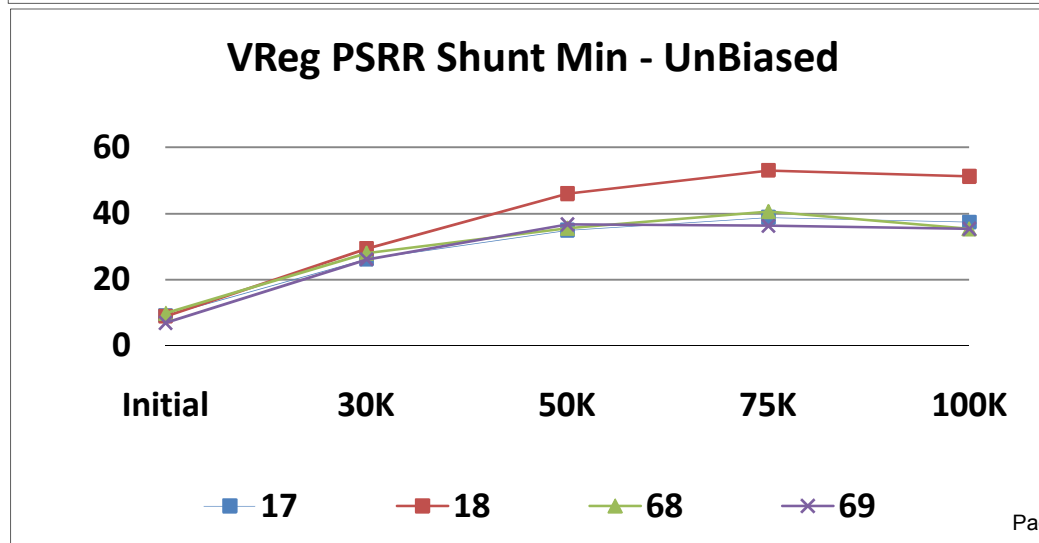
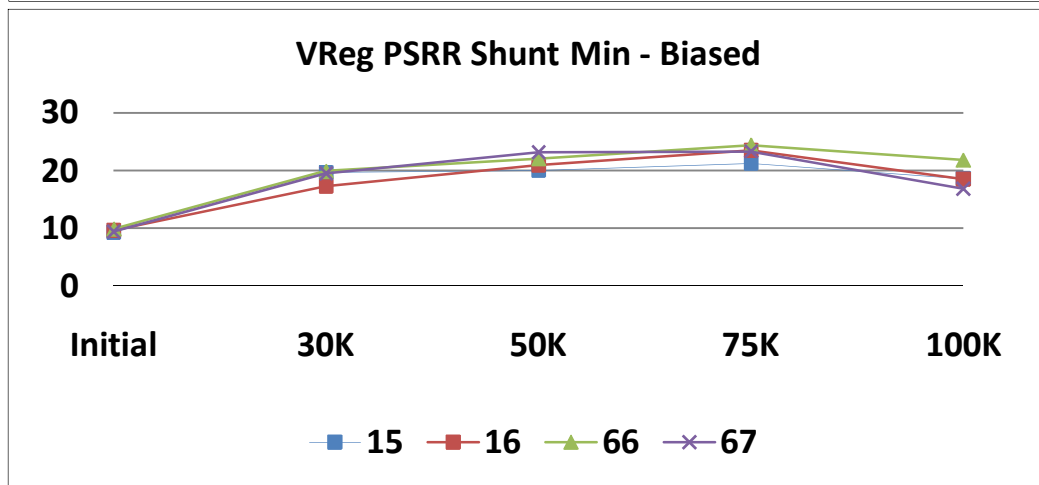
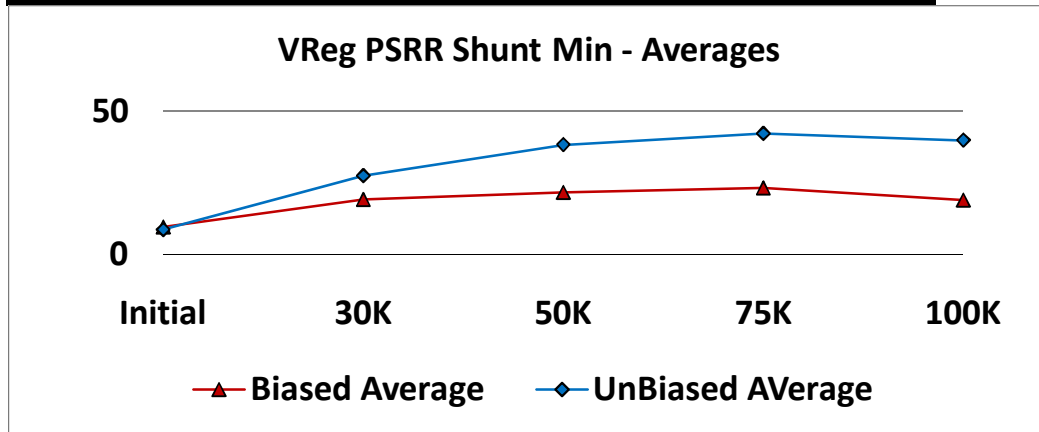
	T# 36.0	VReg Shunt Min 65V				mV
	SN	Initial	30K	50K	75K	100K
Control	34	-16.882	-17.926	-16.570	-17.469	-16.736
	64	-21.939	-23.053	-21.826	-22.102	-22.218
Biased	15	-17.146	29.964	23.893	27.864	33.738
	16	-14.897	35.324	30.796	33.465	39.913
	66	-14.216	32.547	27.779	30.442	34.793
	67	-15.105	37.205	32.482	38.190	43.340
	Min	-17.146	29.964	23.893	27.864	33.738
	Max	-14.216	37.205	32.482	38.190	43.340
Average	-15.341	33.760	28.738	32.490	37.946	
UnBiased	17	-18.760	59.879	77.695	85.273	91.228
	18	-3.928	83.905	110.113	120.646	127.942
	68	-17.435	56.911	72.077	78.996	85.447
	69	-20.436	52.793	72.121	79.045	85.142
	Min	-20.436	52.793	72.077	78.996	85.142
	Max	-3.928	83.905	110.113	120.646	127.942
	Average	-15.139	63.372	83.002	90.990	97.440



		VReg Shunt Max 65V					
T# 37.0		SN	Initial	30K	50K	75K	100K
Control	34	-17.055	-18.127	-16.794	-17.568	-16.759	
	64	-22.161	-23.259	-22.053	-22.376	-22.279	
Biased	15	-17.312	29.723	23.706	27.634	33.615	
	16	-15.105	35.166	30.588	33.204	39.741	
	66	-14.471	32.398	27.556	30.192	34.554	
	67	-15.271	36.960	32.314	37.976	43.238	
	Min	-17.312	29.723	23.706	27.634	33.615	
	Max	-14.471	36.960	32.314	37.976	43.238	
	Average	-15.540	33.562	28.541	32.251	37.787	
UnBiased	17	-18.982	59.684	77.639	85.211	91.106	
	18	-3.984	83.822	109.986	120.615	127.946	
	68	-17.584	56.764	72.042	78.900	85.480	
	69	-20.643	52.635	71.915	79.099	85.212	
	Min	-20.643	52.635	71.915	78.900	85.212	
	Max	-3.984	83.822	109.986	120.615	127.946	
	Average	-15.298	63.226	82.896	90.956	97.436	



	T# 38.0	VReg PSRR Shunt Min				uV/V
		SN	Initial	30K	50K	
Control	34	8.986	12.129	17.983	16.400	9.196
	64	7.769	12.129	15.585	16.686	7.693
Biased	15	9.273	19.610	20.023	21.232	18.573
	16	9.595	17.212	20.918	23.451	18.466
	66	9.845	19.896	22.063	24.418	21.794
	67	9.416	19.502	23.137	23.308	16.855
	Min	9.273	17.212	20.023	21.232	16.855
	Max	9.845	19.896	23.137	24.418	21.794
Average	9.532	19.055	21.535	23.102	18.922	
UnBiased	17	9.058	26.196	34.913	38.771	37.399
	18	8.843	29.346	46.009	53.088	51.250
	68	9.774	27.950	35.486	40.560	35.359
	69	6.767	26.124	36.631	36.229	35.359
	Min	6.767	26.124	34.913	36.229	35.359
	Max	9.774	29.346	46.009	53.088	51.250
	Average	8.610	27.404	38.260	42.162	39.842



T# 39.0		VReg PSRR Shunt Max				uV/V
SN		Initial	30K	50K	75K	100K
Control	34	6.839	9.552	14.511	15.899	8.945
	64	5.514	10.769	13.115	13.143	7.693
Biased	15	7.447	16.854	18.627	18.619	15.674
	16	5.407	14.384	19.414	19.693	14.851
	66	5.765	18.858	19.200	20.588	18.072
	67	6.624	16.138	21.455	21.840	15.352
	Min	5.407	14.384	18.627	18.619	14.851
	Max	7.447	18.858	21.455	21.840	18.072
	Average	6.311	16.558	19.674	20.185	15.987
UnBiased	17	6.373	22.509	33.660	37.840	36.075
	18	8.306	27.663	45.579	52.515	51.823
	68	7.590	25.874	35.521	38.270	37.829
	69	4.763	23.654	32.121	38.914	37.757
	Min	4.763	22.509	32.121	37.840	36.075
	Max	8.306	27.663	45.579	52.515	51.823
	Average	6.758	24.925	36.721	41.885	40.871

