



AHEAD OF WHAT'S POSSIBLE™

LOW DOSE RADIATION TEST REPORT OP471S

April 2014

Generic -6



Radiation Test Report	
Product:	OP471S
Gamma:	0, 15k, 30k, 50k, 75k, 100k
Gamma Source:	Co60/TM1019 Condition D
Dose Rate:	8.3 mRad/s
Facilities:	VPT RAD
Tested:	4/17/14 – 9/17/14

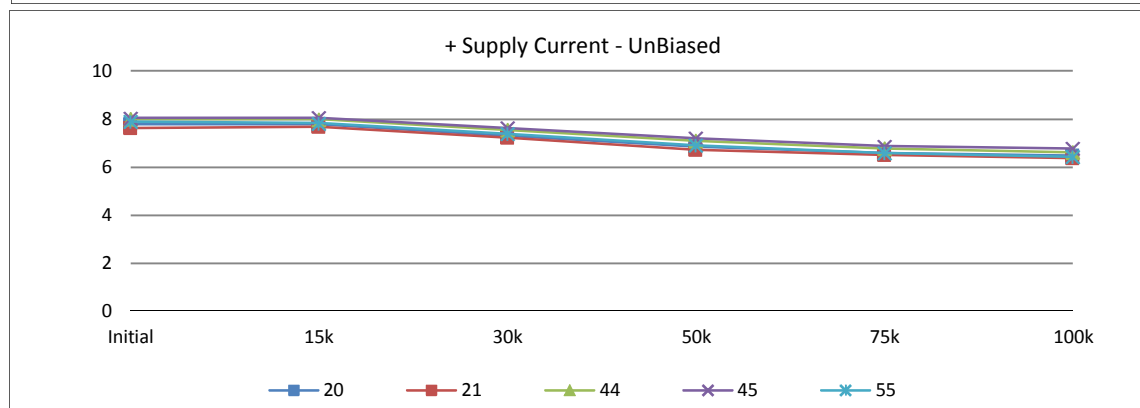
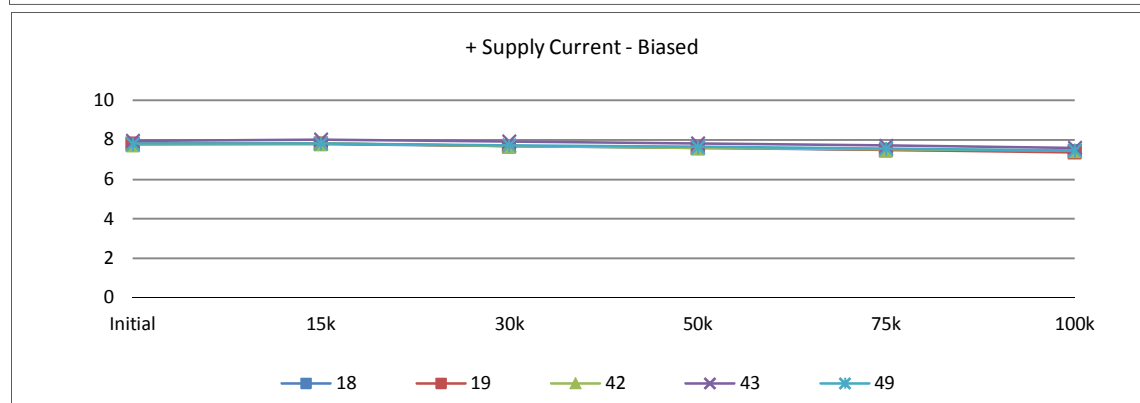
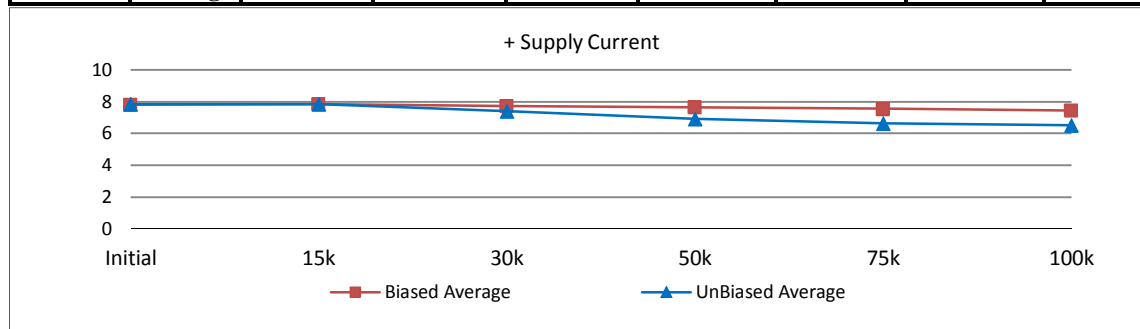
The RADTEST® DATA SERVICE is a compilation of radiation test results on Analog Devices' Space grade products. It is designed to assist customers in selecting the right product for applications where radiation is a consideration. Many products manufactured by Analog Devices, Inc. have been shown to be 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.

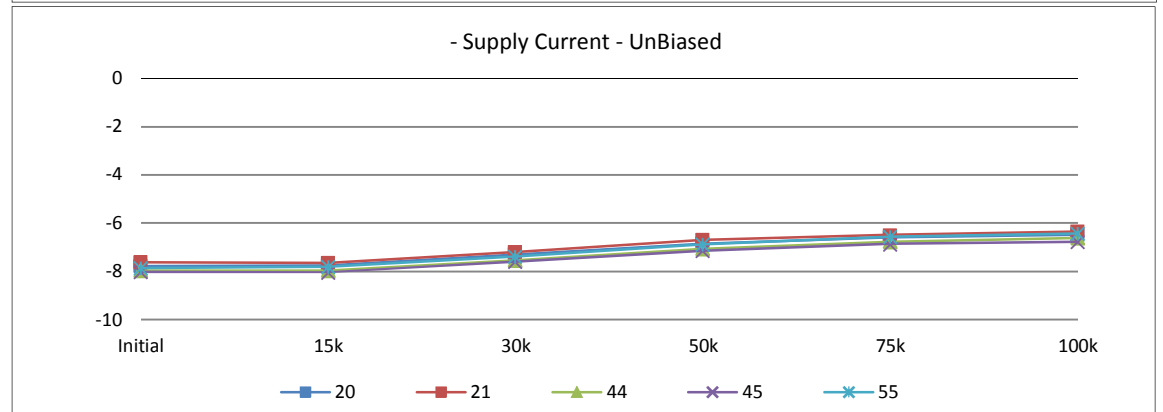
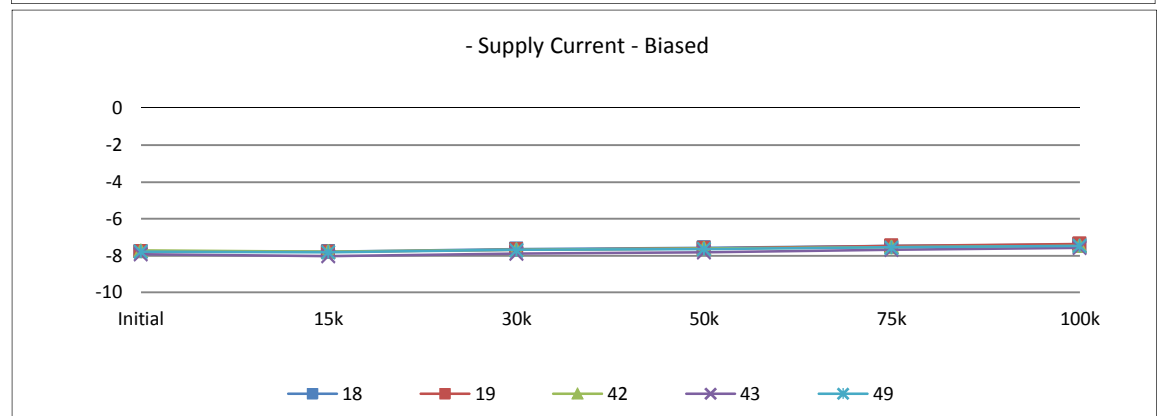
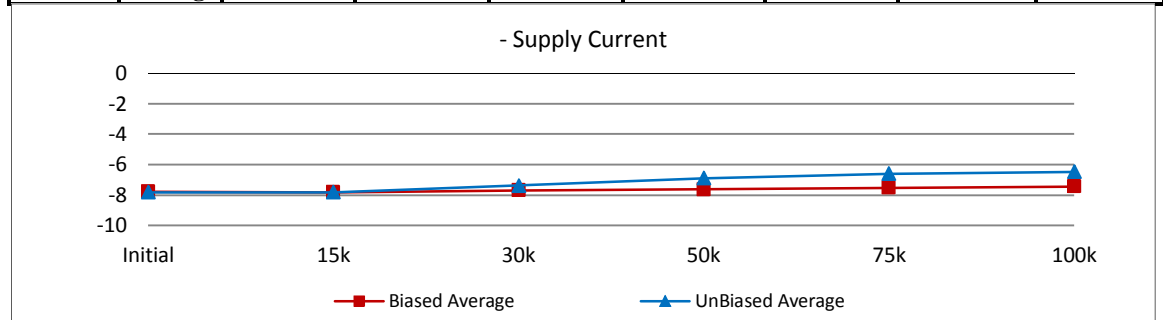
Warning:

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 Devices 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.

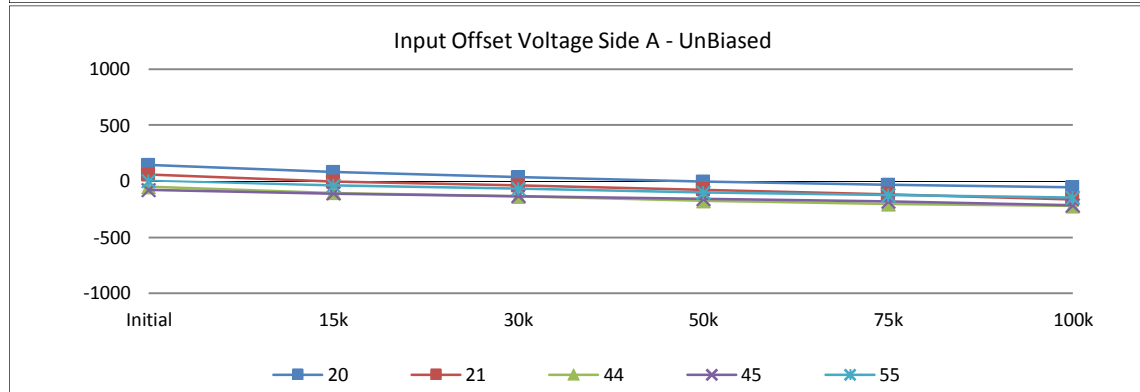
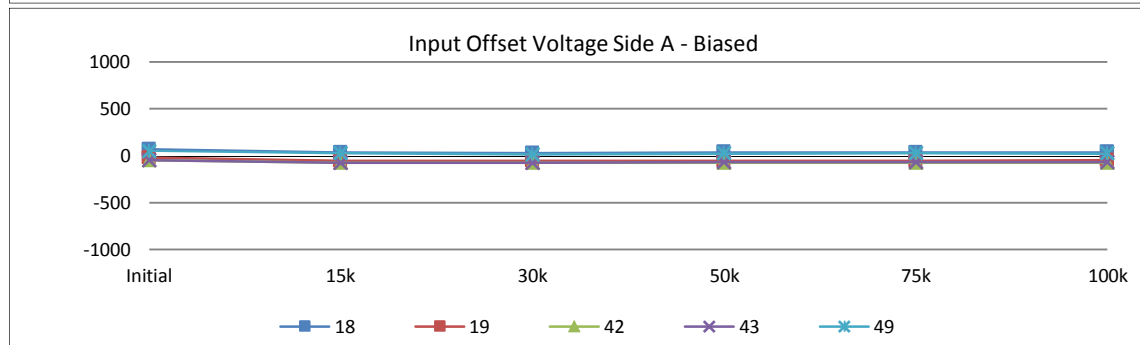
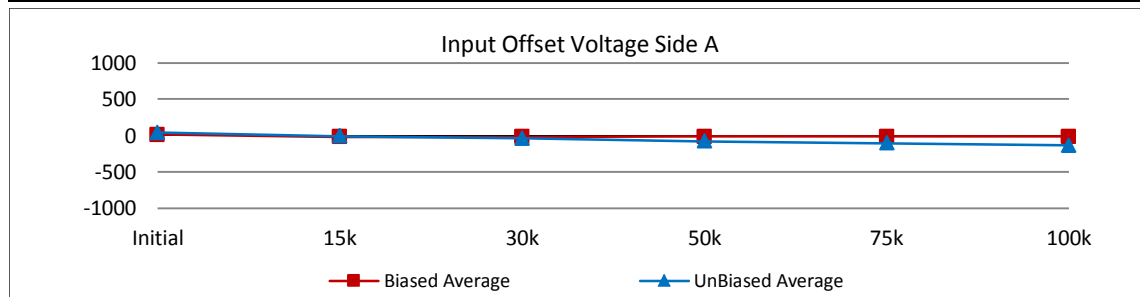
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Control	16	7.792	7.690	7.664	7.636	7.615	7.606	<11
	40	8.028	7.929	7.662	7.914	7.846	7.809	
	46	7.672	7.634	7.632	7.853	7.852	7.841	
Biased	18	7.788	7.779	7.659	7.574	7.475	7.405	
	19	7.802	7.799	7.685	7.594	7.461	7.359	
	42	7.746	7.795	7.678	7.578	7.523	7.457	
	43	7.926	8.009	7.896	7.800	7.690	7.574	
	48	7.777	7.796	7.687	7.616	7.531	7.470	
	49	7.790	7.819	7.702	7.629	7.552	7.462	
	Min	7.746	7.779	7.659	7.574	7.461	7.359	
	Max	7.926	8.009	7.896	7.800	7.690	7.574	
Average	7.805	7.833	7.718	7.632	7.539	7.455		
UnBiased	20	7.792	7.770	7.307	6.841	6.575	6.476	
	21	7.627	7.665	7.214	6.708	6.496	6.358	
	44	7.992	7.983	7.541	7.085	6.773	6.617	
	45	8.034	8.047	7.621	7.198	6.863	6.764	
	50	7.736	7.741	7.303	6.802	6.482	6.367	
	55	7.878	7.822	7.388	6.900	6.577	6.414	
	Min	7.627	7.665	7.214	6.708	6.482	6.358	
	Max	8.034	8.047	7.621	7.198	6.863	6.764	
	Average	7.843	7.838	7.396	6.922	6.628	6.499	



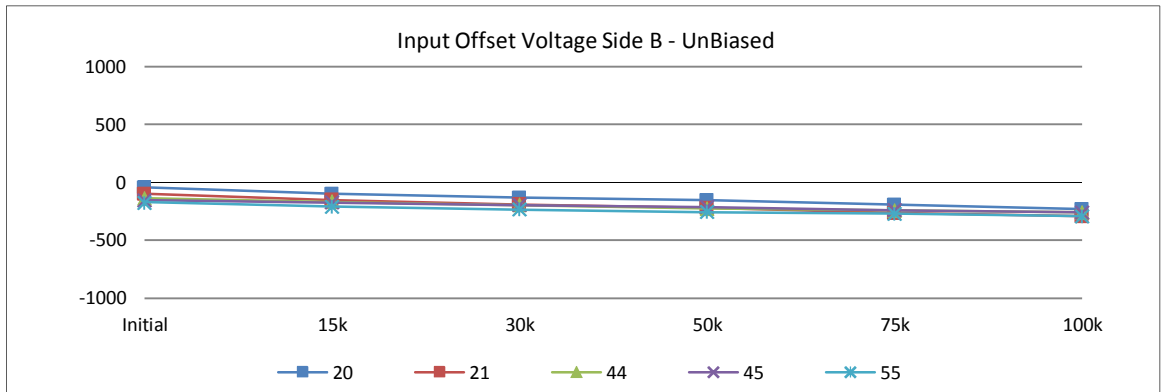
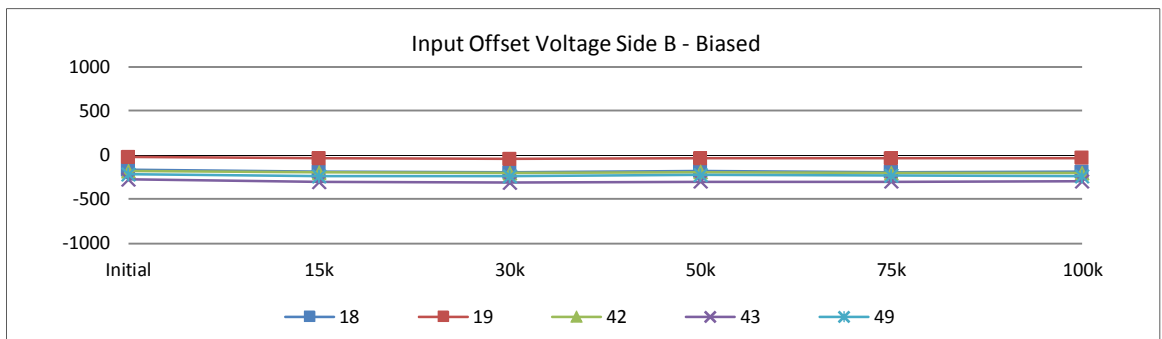
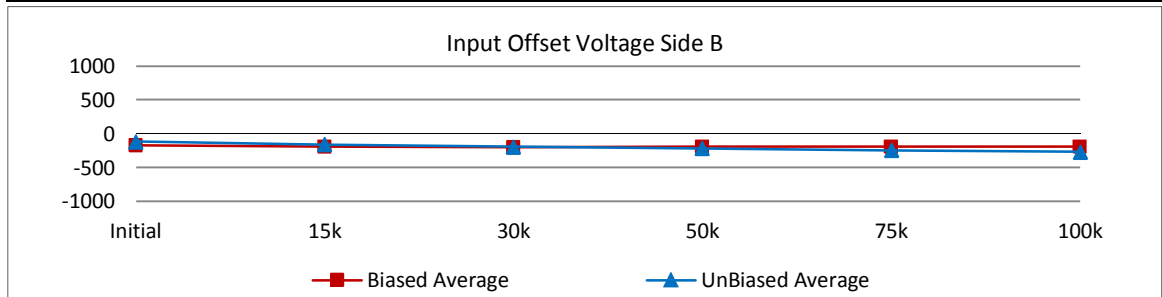
	T#4	ISY- @ 15V						mA
	SN	Initial	15k	30k	50k	75k	100k	Limit
Control	16	-7.788	-7.692	-7.668	-7.642	-7.623	-7.613	>-11
	40	-8.030	-7.932	-7.667	-7.872	-7.859	-7.817	
	46	-7.666	-7.636	-7.621	-7.883	-7.861	-7.852	
Biased	18	-7.788	-7.777	-7.659	-7.587	-7.492	-7.413	
	19	-7.795	-7.803	-7.688	-7.606	-7.475	-7.366	
	42	-7.738	-7.799	-7.681	-7.614	-7.535	-7.468	
	43	-7.915	-8.016	-7.897	-7.810	-7.695	-7.584	
	48	-7.771	-7.798	-7.687	-7.618	-7.545	-7.476	
	49	-7.781	-7.825	-7.704	-7.639	-7.563	-7.473	
	Min	-7.915	-8.016	-7.897	-7.810	-7.695	-7.584	
	Max	-7.738	-7.777	-7.659	-7.587	-7.475	-7.366	
	Average	-7.798	-7.836	-7.719	-7.646	-7.551	-7.463	
	UnBiased	20	-7.786	-7.773	-7.304	-6.865	-6.591	-6.483
21		-7.632	-7.663	-7.217	-6.713	-6.506	-6.370	
44		-7.980	-7.981	-7.554	-7.083	-6.778	-6.631	
45		-8.034	-8.043	-7.616	-7.158	-6.875	-6.781	
50		-7.726	-7.742	-7.302	-6.813	-6.494	-6.381	
55		-7.860	-7.829	-7.385	-6.897	-6.579	-6.426	
Min		-8.034	-8.043	-7.616	-7.158	-6.875	-6.781	
Max		-7.632	-7.663	-7.217	-6.713	-6.494	-6.370	
Average		-7.836	-7.839	-7.396	-6.922	-6.637	-6.512	



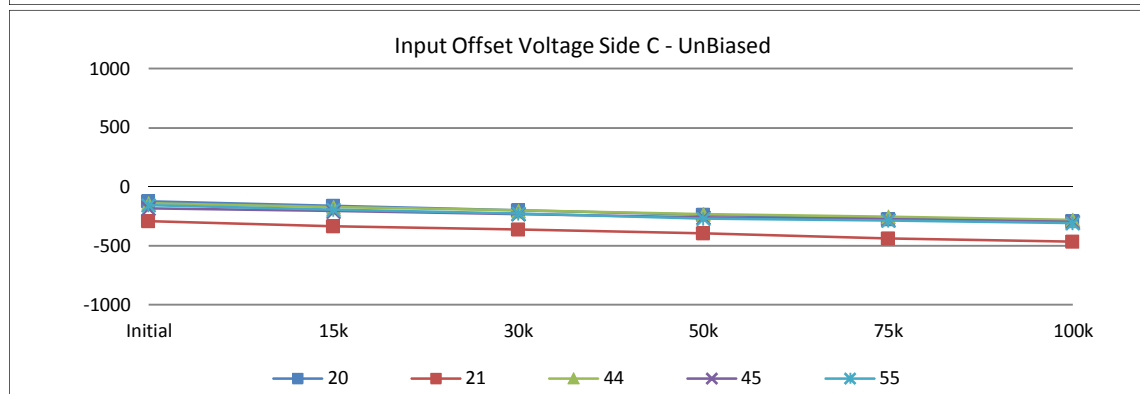
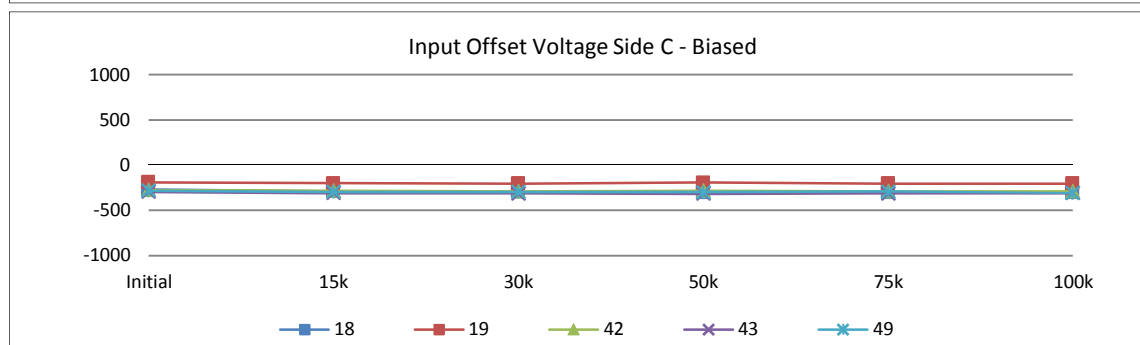
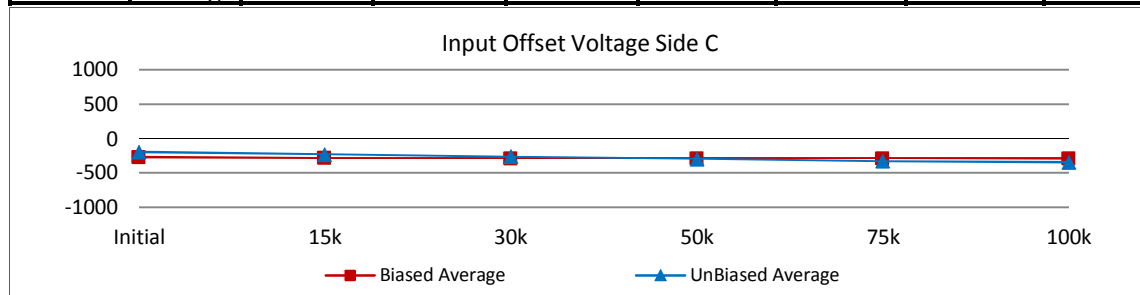
T# 5		VOS A						uV
SN	Initial	15k	30k	50k	75k	100k	Limit	
Control	16	-76.913	-72.510	-71.823	-71.796	-76.828	-79.504	+/-1000
	40	-93.047	-88.030	73.755	-91.691	-90.410	-94.765	
	46	112.482	114.416	119.755	-55.016	-55.357	-60.228	
Biased	18	68.072	35.820	30.026	39.171	33.829	39.502	
	19	-19.649	-52.308	-56.446	-51.649	-50.058	-45.877	
	42	-49.098	-74.101	-77.219	-74.615	-75.840	-73.316	
	43	-44.623	-73.541	-74.894	-65.479	-68.215	-68.708	
	48	78.525	52.634	51.556	61.709	61.345	61.389	
	49	52.147	26.113	17.084	25.198	28.980	25.338	
	Min	-49.098	-74.101	-77.219	-74.615	-75.840	-73.316	
	Max	78.525	52.634	51.556	61.709	61.345	61.389	
UnBiased	Average	14.229	-14.231	-18.316	-10.944	-11.660	-10.279	
	20	145.627	84.891	40.237	0.840	-28.904	-50.781	
	21	58.673	-0.572	-34.422	-72.410	-111.660	-160.856	
	44	-49.449	-100.183	-132.750	-174.088	-200.901	-220.178	
	45	-78.339	-106.270	-129.711	-155.871	-178.333	-210.491	
	50	168.155	118.694	81.806	38.414	9.551	-26.008	
	55	6.882	-34.934	-63.509	-97.953	-122.423	-146.967	
	Min	-78.339	-106.270	-132.750	-174.088	-200.901	-220.178	
Max	168.155	118.694	81.806	38.414	9.551	-26.008		
Average	41.925	-6.396	-39.725	-76.845	-105.445	-135.880		



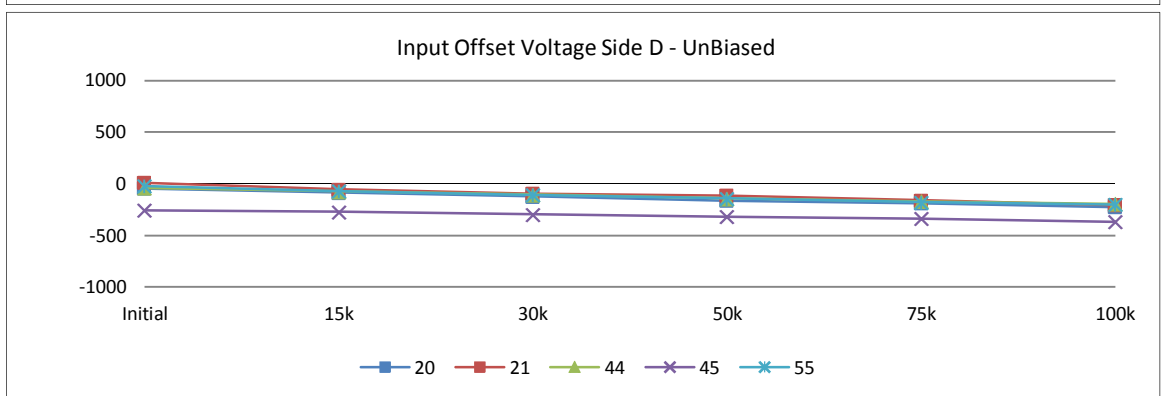
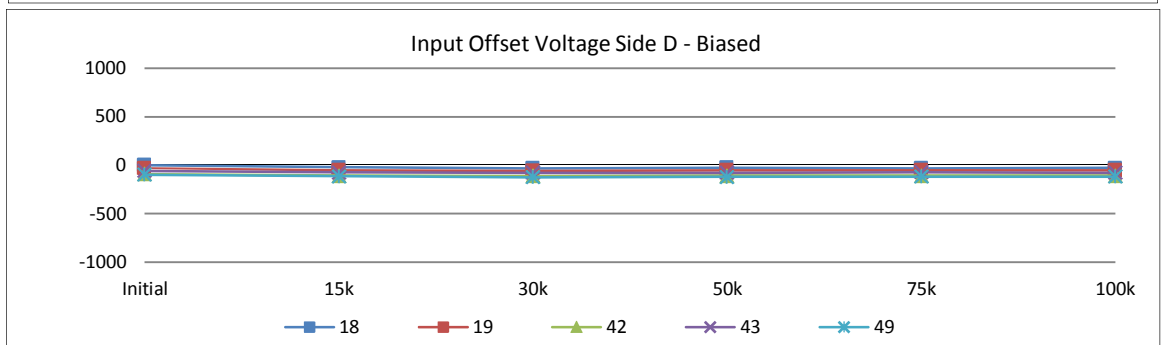
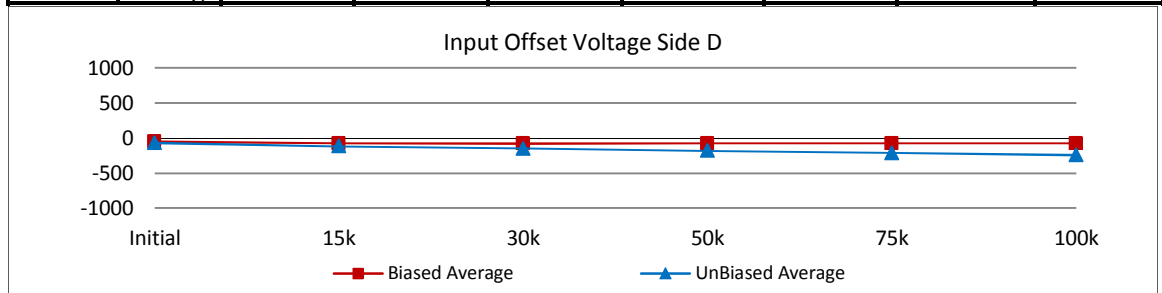
	T#6	VOS B						uV
	SN	Initial	15k	30k	50k	75k	100k	Limit
Control	16	-186.790	-185.535	-185.122	-181.721	-184.028	-183.808	+/-1000
	40	-298.850	-292.363	-256.106	-293.423	-288.629	-294.959	
	46	2.912	0.810	6.006	-112.946	-116.368	-114.547	
Biased	18	-163.022	-186.489	-192.492	-181.820	-190.161	-187.275	
	19	-19.057	-37.281	-40.410	-35.385	-32.076	-31.351	
	42	-178.356	-196.086	-205.467	-190.923	-199.388	-200.759	
	43	-273.492	-300.052	-312.701	-298.830	-299.414	-293.269	
	48	-175.888	-191.063	-194.960	-184.562	-189.382	-190.896	
	49	-217.061	-236.525	-241.168	-225.251	-229.329	-240.409	
	Min	-273.492	-300.052	-312.701	-298.830	-299.414	-293.269	
	Max	-19.057	-37.281	-40.410	-35.385	-32.076	-31.351	
Average	-171.146	-191.249	-197.866	-186.129	-189.958	-190.660		
UnBiased	20	-38.569	-93.701	-129.832	-152.208	-191.114	-226.596	
	21	-94.637	-148.200	-186.646	-217.168	-260.848	-291.064	
	44	-134.846	-163.895	-192.328	-223.320	-240.617	-255.934	
	45	-151.089	-169.796	-192.459	-208.920	-236.678	-257.217	
	50	-113.875	-163.292	-206.345	-234.606	-270.843	-295.716	
	55	-170.557	-204.543	-230.682	-253.239	-267.233	-289.089	
	Min	-170.557	-204.543	-230.682	-253.239	-270.843	-295.716	
	Max	-38.569	-93.701	-129.832	-152.208	-191.114	-226.596	
Average	-117.262	-157.238	-189.715	-214.910	-244.556	-269.269		



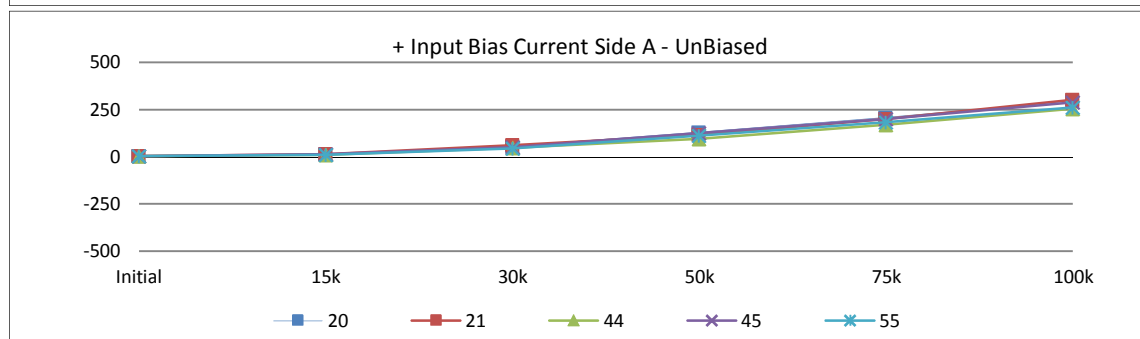
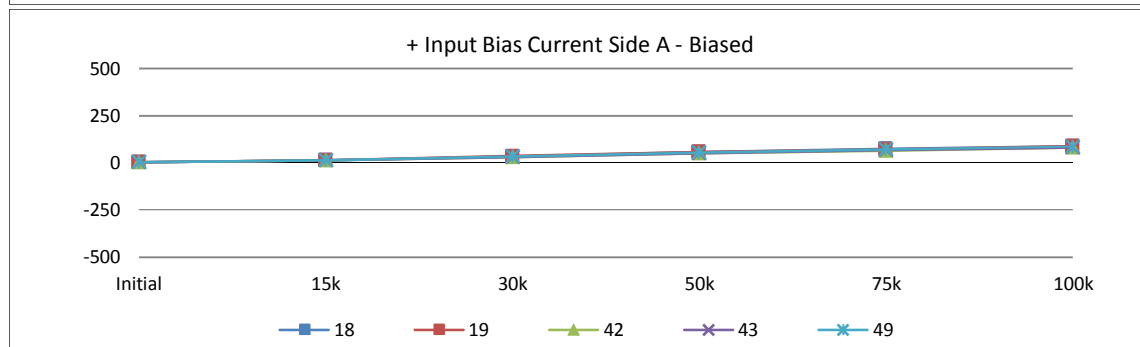
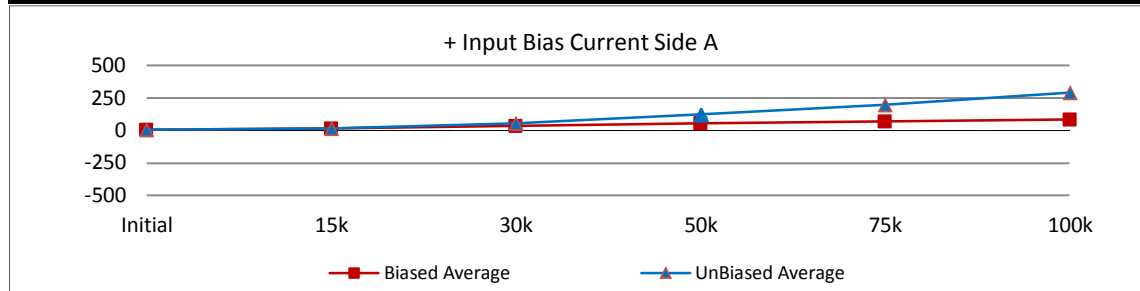
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	SN	Initial	15k	30k	50k	75k	100k	Limit
Control	16	-338.784	-333.844	-333.737	-336.678	-336.167	-334.324	+/-1000
	40	-156.047	-151.425	-263.597	-153.963	-148.372	-154.822	
	46	-245.194	-243.622	-242.681	-137.238	-139.441	-139.045	
Biased	18	-272.329	-292.188	-300.099	-303.272	-303.451	-304.098	
	19	-190.947	-202.678	-208.681	-197.602	-207.375	-208.933	
	42	-273.228	-284.631	-290.732	-286.492	-291.394	-292.183	
	43	-298.663	-311.513	-317.636	-317.639	-316.287	-311.745	
	48	-282.781	-301.357	-303.422	-300.749	-299.457	-304.592	
	49	-281.509	-298.549	-300.790	-301.857	-294.773	-308.552	
	Min	-298.663	-311.513	-317.636	-317.639	-316.287	-311.745	
	Max	-190.947	-202.678	-208.681	-197.602	-207.375	-208.933	
	Average	-266.576	-281.819	-286.893	-284.602	-285.456	-288.351	
	UnBiased	20	-123.812	-163.007	-200.345	-238.488	-274.365	-293.631
21		-289.911	-334.623	-363.428	-396.965	-439.516	-464.191	
44		-138.410	-174.885	-202.901	-233.805	-256.240	-282.616	
45		-182.249	-207.866	-232.525	-259.227	-278.633	-299.380	
50		-274.380	-313.740	-351.955	-386.470	-417.661	-438.409	
55		-158.010	-194.694	-226.295	-269.460	-288.649	-307.214	
Min		-289.911	-334.623	-363.428	-396.965	-439.516	-464.191	
Max		-123.812	-163.007	-200.345	-233.805	-256.240	-282.616	
Average	-194.462	-231.469	-262.908	-297.403	-325.844	-347.574		



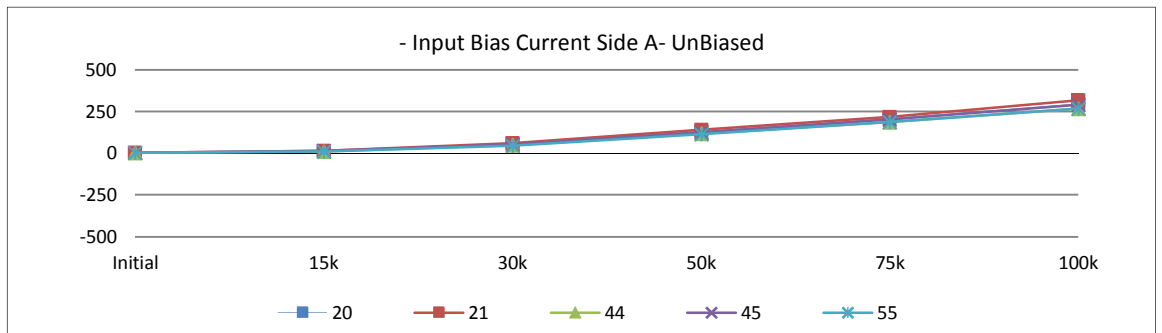
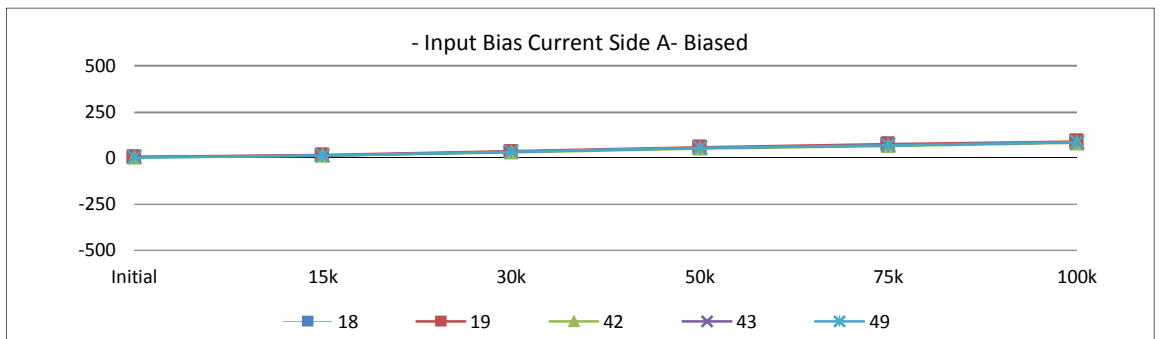
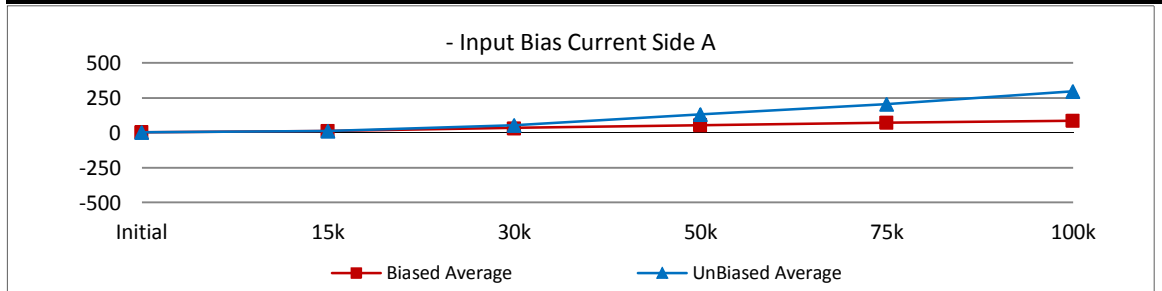
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	Initial	15k	30k	50k	75k	100k		
Control	16	-119.798	-114.562	-111.329	-115.128	-117.937	-121.272	+/-1000
	40	-189.324	-184.702	54.978	-185.483	-180.715	-187.264	
	46	-215.987	-212.736	-211.028	-176.611	-176.425	-180.517	
Biased	18	2.199	-26.204	-33.906	-28.530	-34.226	-30.506	
	19	-30.628	-53.240	-60.548	-53.273	-53.283	-56.421	
	42	-90.941	-109.791	-112.360	-109.787	-110.137	-110.553	
	43	-59.419	-77.271	-82.527	-82.204	-76.235	-82.708	
	48	-35.772	-62.387	-67.304	-61.728	-61.402	-59.767	
	49	-97.873	-118.982	-126.871	-124.439	-119.418	-122.479	
	Min	-97.873	-118.982	-126.871	-124.439	-119.418	-122.479	
	Max	2.199	-26.204	-33.906	-28.530	-34.226	-30.506	
	Average	-52.072	-74.646	-80.586	-76.660	-75.784	-77.072	
UnBiased	20	-44.053	-86.933	-125.160	-165.402	-191.027	-225.785	
	21	9.690	-56.585	-96.939	-115.073	-160.867	-207.528	
	44	-37.483	-76.448	-105.242	-144.279	-169.698	-192.037	
	45	-254.780	-274.540	-297.115	-321.039	-337.055	-368.675	
	50	-95.690	-137.309	-170.085	-208.822	-234.254	-278.721	
	55	-20.406	-72.083	-110.167	-142.733	-179.419	-201.198	
	Min	-254.780	-274.540	-297.115	-321.039	-337.055	-368.675	
	Max	9.690	-56.585	-96.939	-115.073	-160.867	-192.037	
	Average	-73.787	-117.316	-150.785	-182.891	-212.053	-245.657	



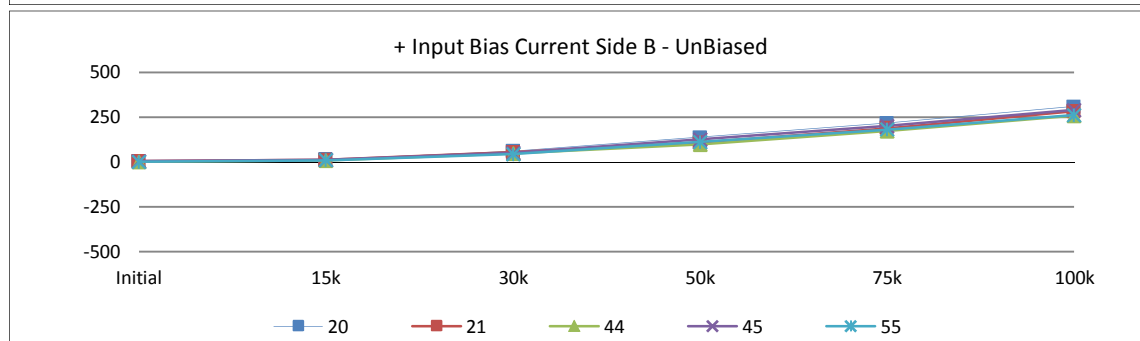
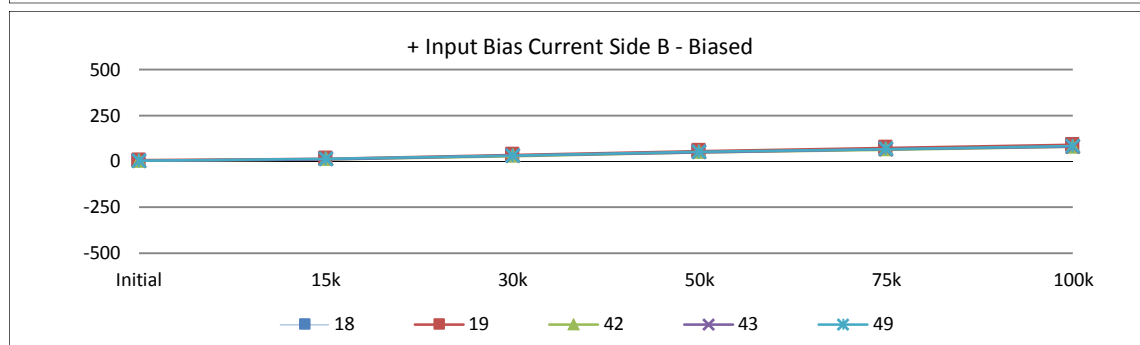
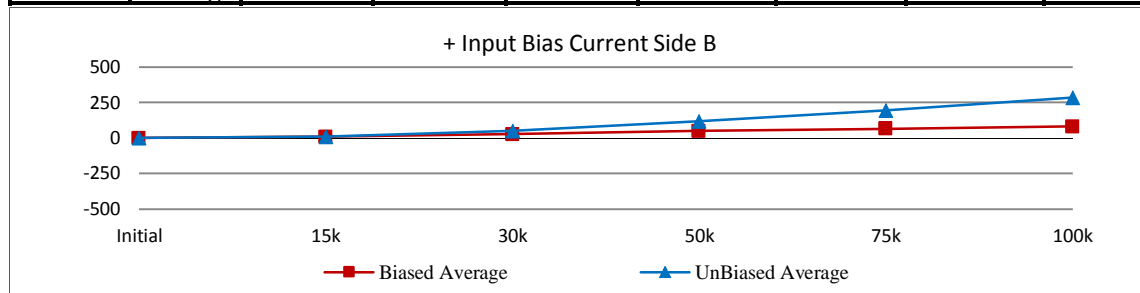
	T# 9	IB+ A						nA
	SN	Initial	15k	30k	50k	75k	100k	Limit
Control	16	3.711	3.619	3.622	3.643	3.651	3.659	+/-500
	40	3.882	3.803	4.572	3.862	3.664	3.791	
	46	3.884	3.875	3.750	3.998	4.034	4.056	
Biased	18	4.362	14.355	34.814	57.287	73.938	89.274	
	19	4.466	14.585	35.404	57.432	72.342	89.139	
	42	3.629	11.751	30.382	50.667	64.829	80.032	
	43	4.365	13.728	31.219	51.603	67.554	81.867	
	48	4.417	13.334	30.726	51.026	64.846	78.567	
	49	4.039	13.836	32.268	54.840	70.068	86.237	
	Min	3.629	11.751	30.382	50.667	64.829	78.567	
	Max	4.466	14.585	35.404	57.432	73.938	89.274	
Average	4.213	13.598	32.469	53.809	68.930	84.186		
UnBiased	20	4.389	12.938	55.734	130.479	208.107	297.148	
	21	4.559	15.394	60.161	114.580	200.225	303.789	
	44	4.518	12.283	48.638	96.457	170.113	255.229	
	45	3.599	13.227	52.154	125.590	201.042	289.957	
	50	5.669	15.837	60.133	144.198	228.737	324.750	
	55	3.270	10.549	46.010	112.773	183.800	262.306	
	Min	3.270	10.549	46.010	96.457	170.113	255.229	
	Max	5.669	15.837	60.161	144.198	228.737	324.750	
Average	4.334	13.371	53.805	120.680	198.671	288.863		



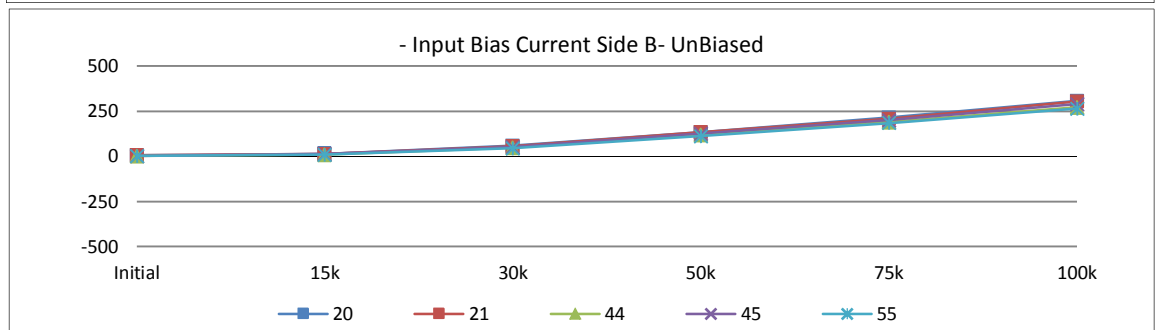
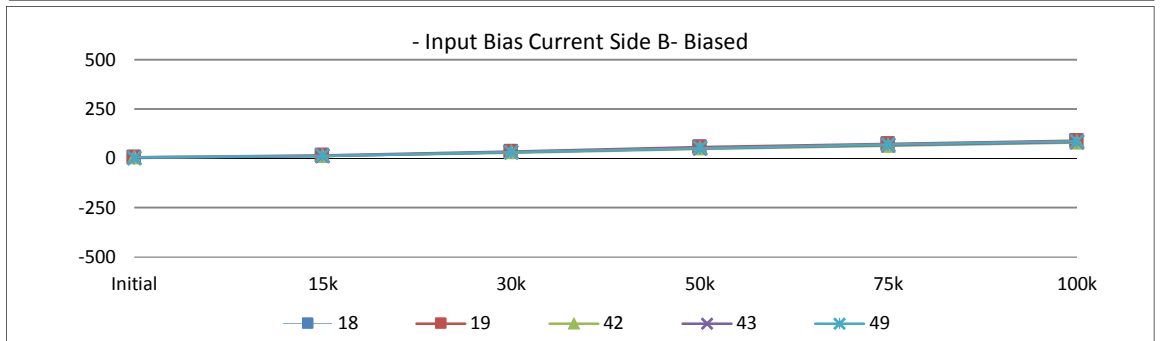
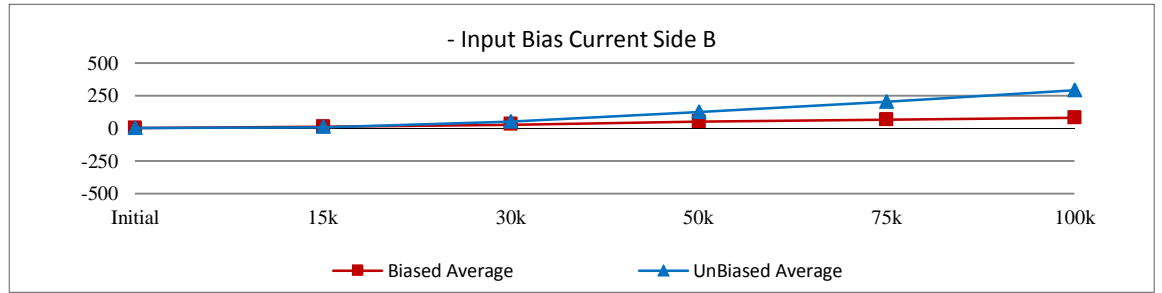
	T# 10	IB- A						nA
	SN	Initial	15k	30k	50k	75k	100k	Limit
Control	16	4.076	3.990	3.933	4.084	4.195	4.207	+/-500
	40	3.872	3.698	4.533	3.873	3.819	3.941	
	46	4.502	4.392	4.302	5.071	5.230	5.218	
Biased	18	4.732	14.419	35.944	58.726	75.003	91.536	
	19	5.158	15.423	35.910	59.114	75.439	91.179	
	42	3.762	12.724	31.324	51.513	66.668	80.955	
	43	4.873	14.388	32.831	53.765	70.219	84.540	
	48	3.875	13.589	30.286	50.119	64.121	78.572	
	49	4.038	13.756	33.049	55.854	70.317	87.279	
	Min	3.762	12.724	30.286	50.119	64.121	78.572	
	Max	5.158	15.423	35.944	59.114	75.439	91.536	
	Average	4.406	14.050	33.224	54.849	70.295	85.677	
UnBiased	20	4.527	14.324	56.420	130.899	208.273	298.905	
	21	4.817	16.384	60.499	142.420	219.397	316.898	
	44	4.652	12.809	49.687	119.073	189.130	270.147	
	45	4.670	14.218	53.367	125.965	201.951	292.687	
	50	5.462	15.797	60.251	144.468	228.557	323.508	
	55	3.374	11.486	47.222	115.966	187.439	268.663	
	Min	3.374	11.486	47.222	115.966	187.439	268.663	
	Max	5.462	16.384	60.499	144.468	228.557	323.508	
	Average	4.584	14.170	54.574	129.799	205.791	295.135	



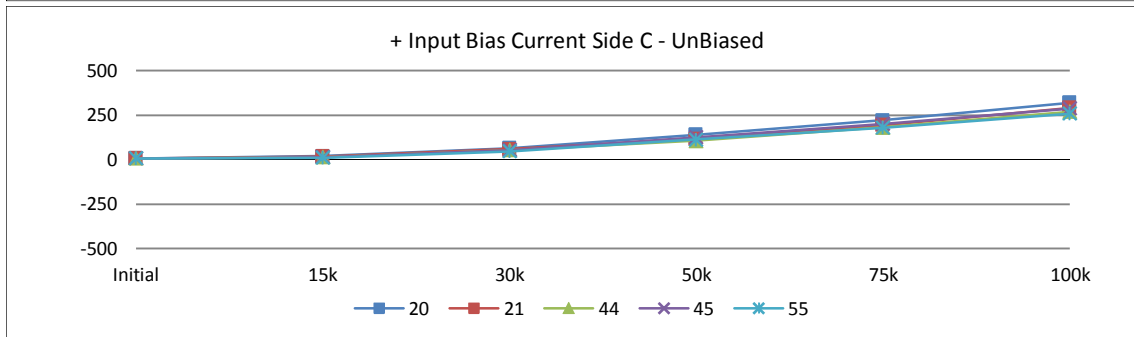
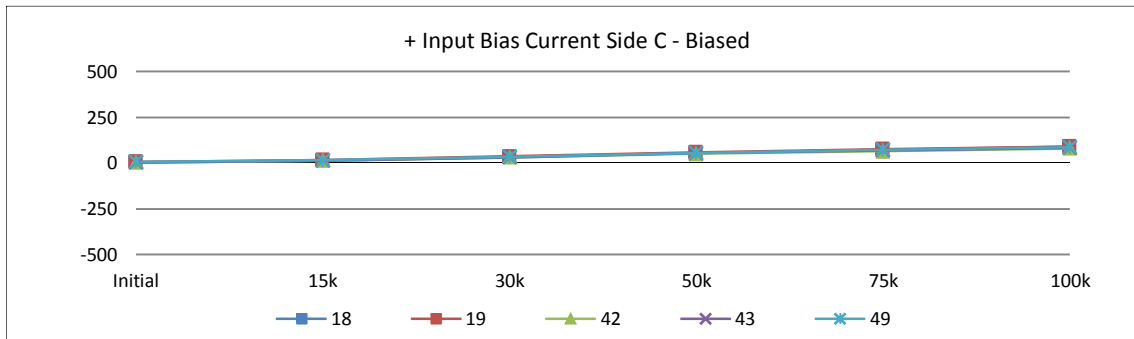
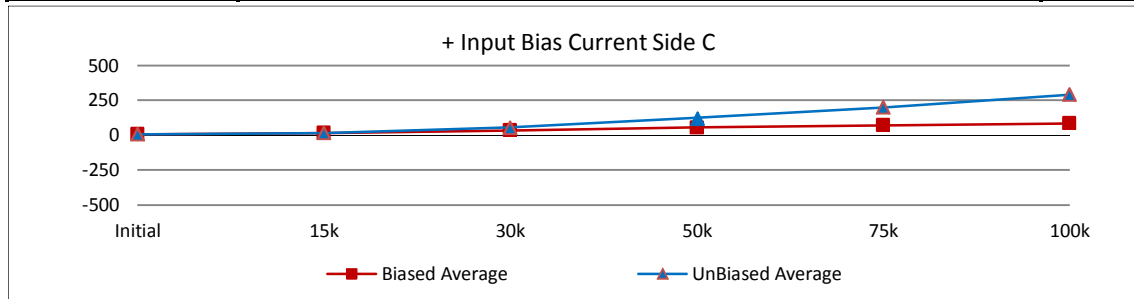
	T# 11	IB+ B						nA
	SN	Initial	15k	30k	50k	75k	100k	Limit
Control	16	3.396	3.283	3.281	3.384	3.399	3.397	+/-500
	40	2.855	2.770	3.164	2.786	2.739	2.816	
	46	5.214	5.110	5.092	2.979	2.915	2.959	
Biased	18	4.123	13.154	32.408	55.467	71.644	89.264	
	19	5.218	16.353	36.669	58.032	74.688	88.999	
	42	4.585	13.008	30.385	50.721	64.851	79.183	
	43	3.640	12.388	31.092	51.218	67.362	80.736	
	48	3.435	11.751	28.643	47.349	63.390	77.942	
	49	4.038	13.582	31.673	52.465	68.447	84.053	
	Min	3.435	11.751	28.643	47.349	63.390	77.942	
	Max	5.218	16.353	36.669	58.032	74.688	89.264	
	Average	4.173	13.373	31.812	52.542	68.397	83.363	
	UnBiased	20	4.759	15.165	61.294	137.227	217.379	308.541
21		4.340	12.996	55.387	108.548	189.227	285.128	
44		3.034	10.425	48.022	98.410	173.531	260.135	
45		3.542	12.439	52.162	127.828	203.240	291.116	
50		4.750	13.535	56.438	136.582	216.300	306.757	
55		3.018	10.440	44.929	112.399	183.011	261.979	
Min		3.018	10.425	44.929	98.410	173.531	260.135	
Max		4.759	15.165	61.294	137.227	217.379	308.541	
Average		3.907	12.500	53.039	120.166	197.115	285.609	



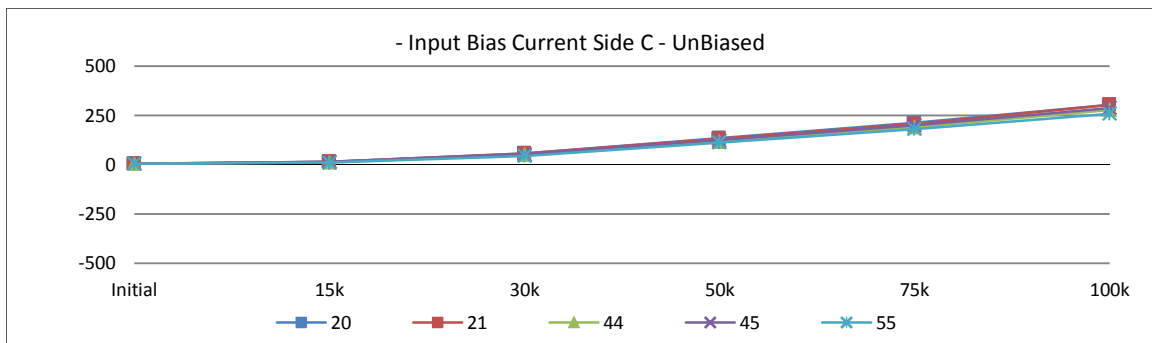
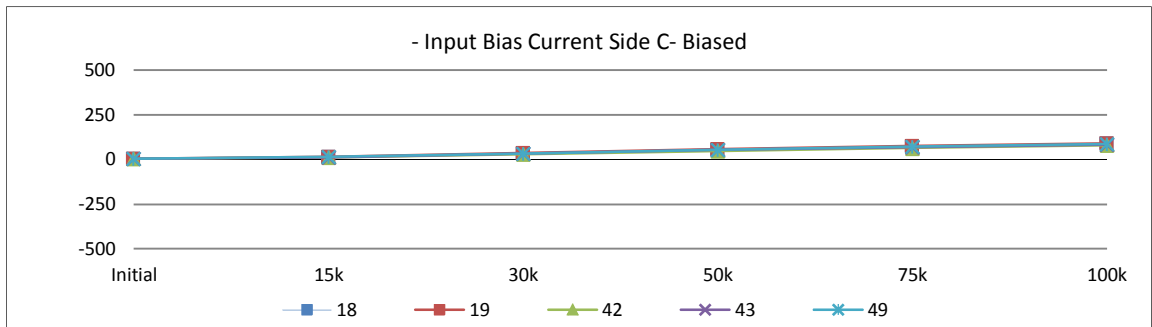
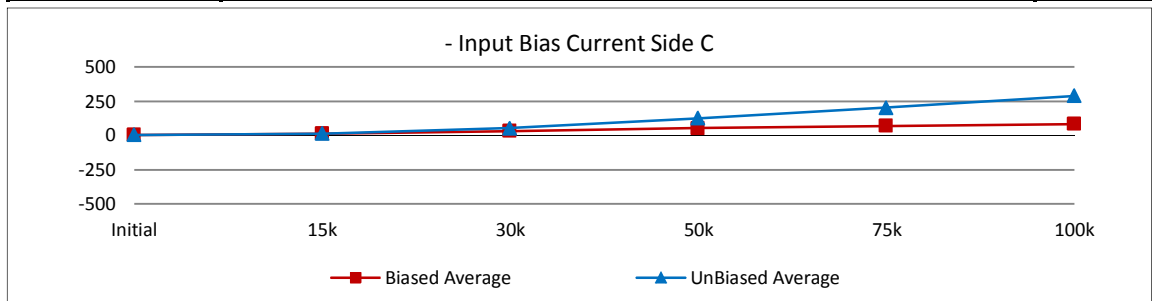
	T# 12	IB- B						nA
	SN	Initial	15k	30k	50k	75k	100k	Limit
Control	16	4.115	3.962	3.882	3.995	4.116	4.128	+/-500
	40	3.341	3.182	4.087	3.291	3.283	3.413	
	46	5.504	5.465	5.346	3.060	3.156	3.181	
Biased	18	4.898	14.833	34.008	56.569	73.058	91.187	
	19	5.162	15.856	35.979	58.653	74.802	89.589	
	42	4.783	13.341	30.785	50.698	65.840	80.162	
	43	4.080	13.242	31.935	52.375	68.644	82.703	
	48	3.735	12.645	28.880	48.567	64.121	78.693	
	49	4.340	14.436	32.179	54.042	70.359	86.465	
	Min	3.735	12.645	28.880	48.567	64.121	78.693	
	Max	5.162	15.856	35.979	58.653	74.802	91.187	
	Average	4.500	14.059	32.294	53.484	69.471	84.800	
UnBiased	20	5.280	15.306	60.056	134.857	215.429	306.124	
	21	4.645	13.871	56.576	135.309	208.385	303.461	
	44	3.097	10.276	48.647	119.977	190.001	273.050	
	45	3.857	13.155	53.035	127.702	202.632	290.431	
	50	5.984	15.936	59.244	141.835	224.581	316.911	
	55	3.455	10.420	44.986	113.343	186.216	265.280	
	Min	3.097	10.276	44.986	113.343	186.216	265.280	
	Max	5.984	15.936	60.056	141.835	224.581	316.911	
Average	4.386	13.161	53.757	128.837	204.541	292.543		



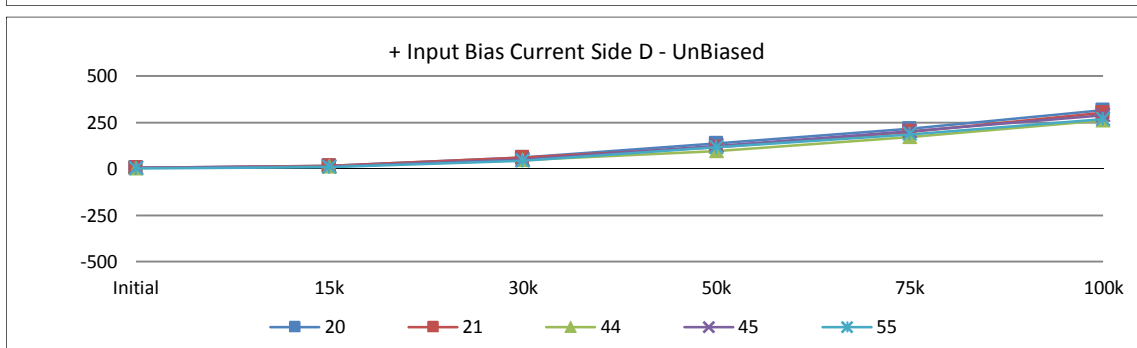
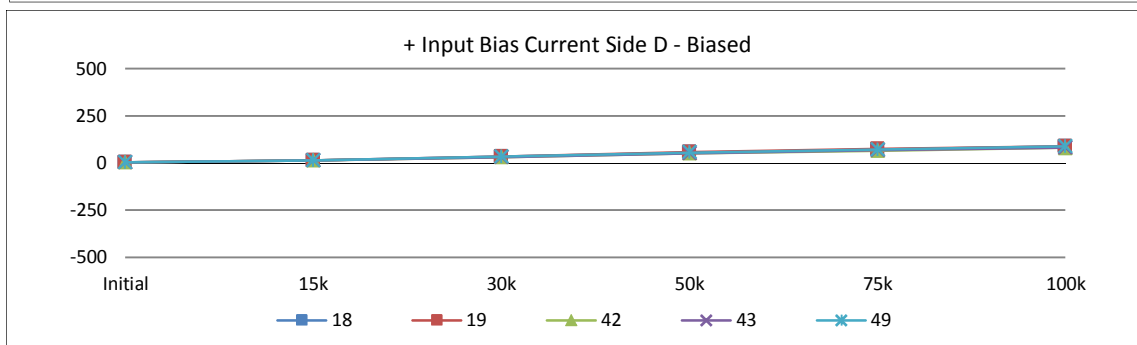
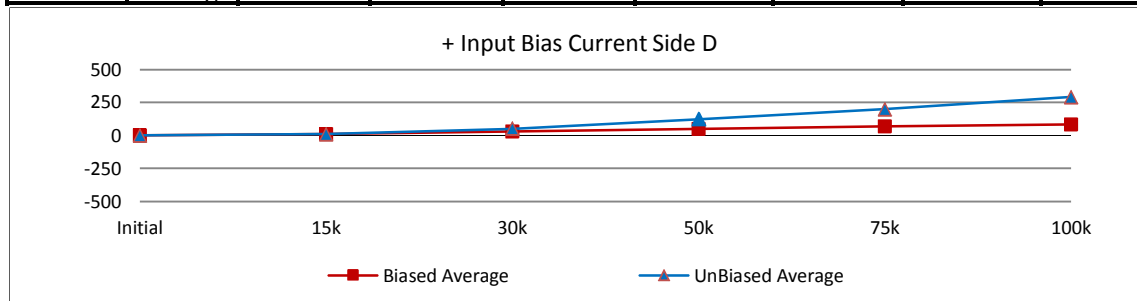
	T# 13	IB+ C						nA
	SN	Initial	15k	30k	50k	75k	100k	Limit
Control	16	3.763	3.573	3.528	3.687	3.711	3.775	+/-500
	40	5.111	4.980	3.641	5.234	5.136	5.263	
	46	5.845	5.808	5.735	4.029	4.030	4.014	
Biased	18	4.505	13.923	33.384	54.894	71.493	88.432	
	19	5.688	15.005	35.199	58.093	75.044	90.548	
	42	3.772	12.519	29.963	49.421	63.635	79.032	
	43	4.055	12.978	31.306	52.796	67.639	82.313	
	48	4.029	12.333	29.215	50.379	65.566	79.857	
	49	4.521	14.380	32.415	54.369	71.316	87.900	
	Min	3.772	12.333	29.215	49.421	63.635	79.032	
	Max	5.688	15.005	35.199	58.093	75.044	90.548	
	Average	4.428	13.523	31.914	53.325	69.116	84.680	
UnBiased	20	6.098	17.883	61.773	138.615	219.701	317.564	
	21	4.727	15.826	57.391	113.485	191.806	289.905	
	44	3.807	12.378	50.453	104.241	179.901	269.702	
	45	5.456	13.645	51.551	124.935	199.900	286.999	
	50	5.720	14.284	57.262	139.719	221.983	318.164	
	55	3.545	9.610	43.365	110.973	179.389	256.274	
	Min	3.545	9.610	43.365	104.241	179.389	256.274	
	Max	6.098	17.883	61.773	139.719	221.983	318.164	
	Average	4.892	13.938	53.633	121.995	198.780	289.768	



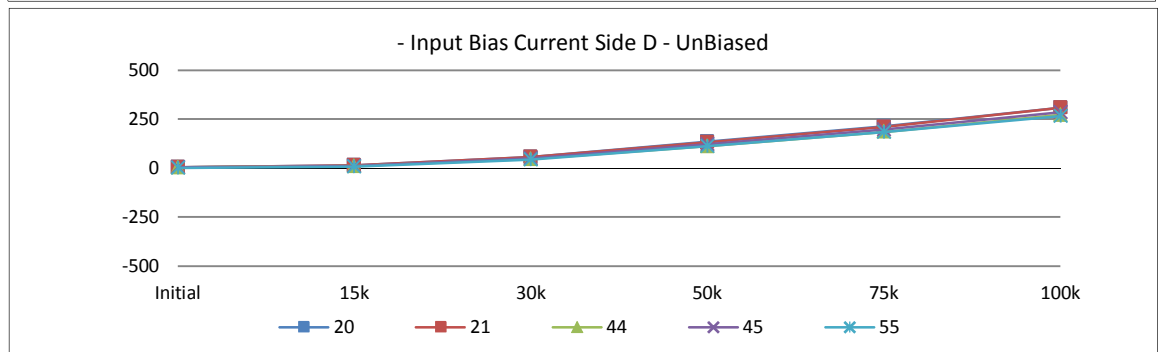
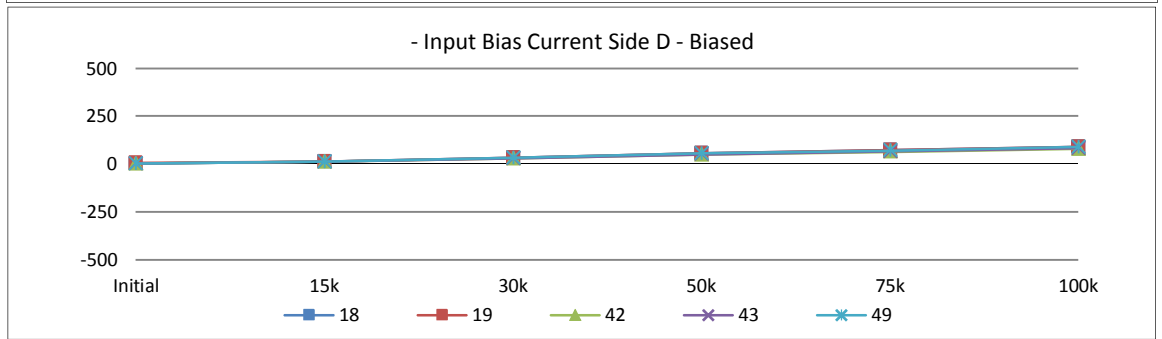
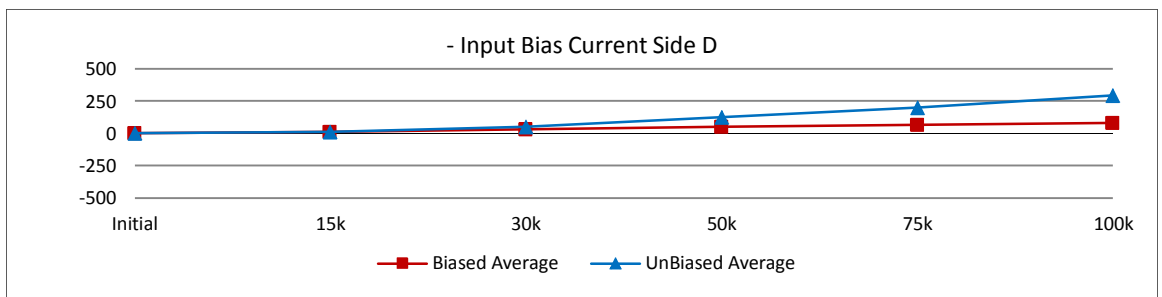
	T# 14	IB- C						nA
	SN	Initial	15k	30k	50k	75k	100k	Limit
Control	16	3.213	3.059	3.069	3.085	3.248	3.292	+/-500
	40	4.121	3.991	3.270	4.213	4.226	4.328	
	46	5.048	4.977	4.886	3.158	3.287	3.270	
Biased	18	4.174	12.963	32.634	54.879	71.513	88.395	
	19	5.126	14.383	34.402	57.046	74.871	89.360	
	42	2.720	10.882	27.993	47.306	62.690	77.461	
	43	3.551	11.985	30.881	52.826	68.360	81.736	
	48	3.985	12.394	28.771	49.843	65.111	80.731	
	49	4.030	14.147	31.924	53.702	70.220	86.725	
	Min	2.720	10.882	27.993	47.306	62.690	77.461	
	Max	5.126	14.383	34.402	57.046	74.871	89.360	
	Average	3.931	12.792	31.101	52.600	68.794	84.068	
UnBiased	20	4.585	14.119	57.442	133.681	212.492	304.823	
	21	3.995	14.119	55.339	130.310	205.562	303.076	
	44	3.011	11.161	49.633	115.658	190.158	276.637	
	45	4.728	13.302	51.220	123.049	198.993	287.487	
	50	4.610	12.086	55.764	137.432	220.891	314.969	
	55	2.887	9.084	42.324	111.600	180.804	258.571	
	Min	2.887	9.084	42.324	111.600	180.804	258.571	
	Max	4.728	14.119	57.442	137.432	220.891	314.969	
	Average	3.969	12.312	51.954	125.288	201.483	290.927	



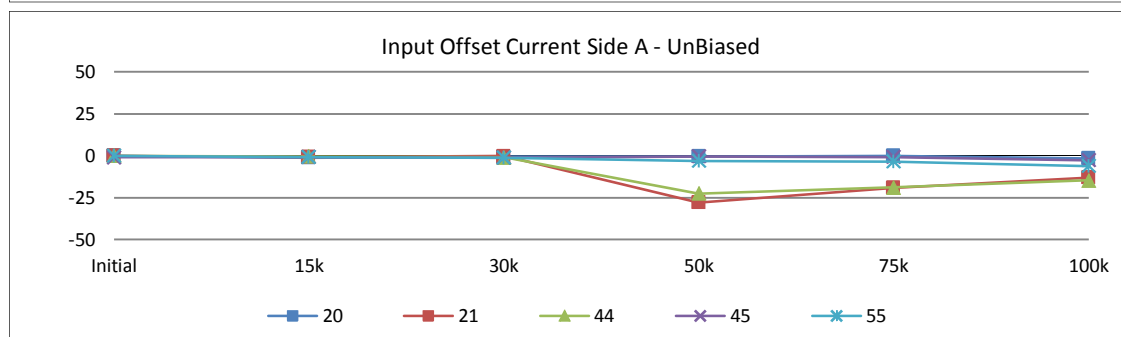
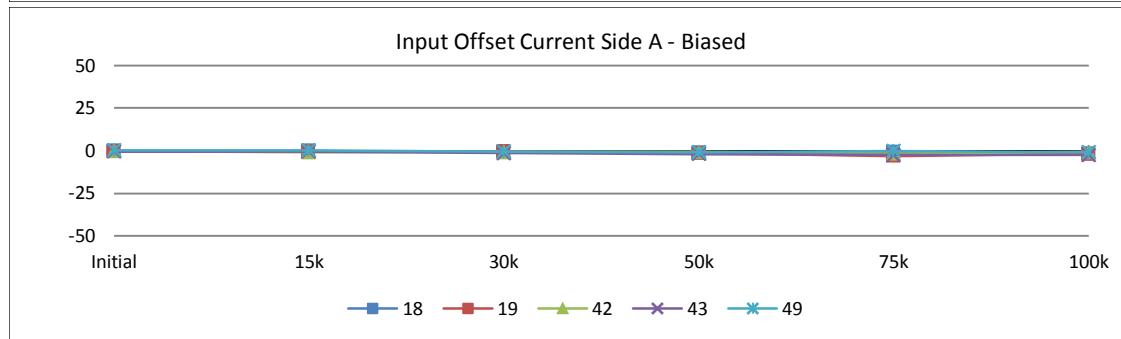
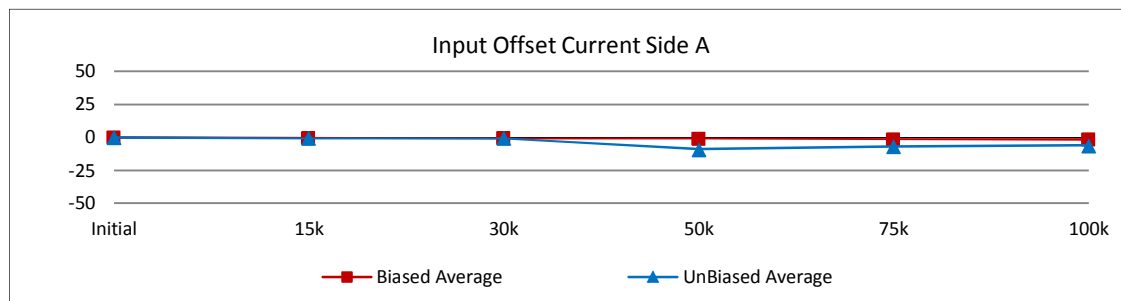
	T# 15	IB+ D						nA
	SN	Initial	15k	30k	50k	75k	100k	Limit
Control	16	3.244	3.165	3.151	3.208	3.187	3.245	+/-500
	40	5.332	5.227	4.310	5.290	5.098	5.232	
	46	5.127	5.214	5.072	4.497	4.511	4.512	
Biased	18	3.779	13.408	34.216	56.831	72.544	87.869	
	19	5.450	15.024	34.437	57.335	74.901	90.340	
	42	3.797	13.034	30.180	50.452	64.404	80.220	
	43	4.399	13.564	31.934	52.933	68.356	82.691	
	48	3.695	11.329	28.210	50.130	66.205	79.612	
	49	4.517	15.242	33.859	56.734	72.548	87.872	
	Min	3.695	11.329	28.210	50.130	64.404	79.612	
	Max	5.450	15.242	34.437	57.335	74.901	90.340	
	Average	4.273	13.600	32.139	54.069	69.826	84.767	
	UnBiased	20	5.799	17.719	60.730	138.063	216.780	316.243
21		5.107	18.368	61.331	118.352	201.306	303.284	
44		4.588	12.530	48.899	97.038	171.883	259.965	
45		5.089	13.575	51.800	125.938	204.071	289.346	
50		5.714	14.733	59.041	143.833	229.235	327.688	
55		2.812	10.555	45.607	116.174	187.903	269.569	
Min		2.812	10.555	45.607	97.038	171.883	259.965	
Max		5.799	18.368	61.331	143.833	229.235	327.688	
Average		4.852	14.580	54.568	123.233	201.863	294.349	



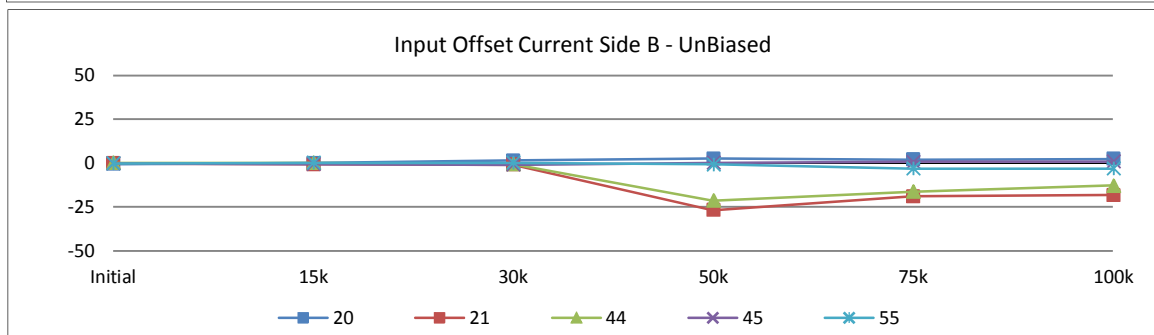
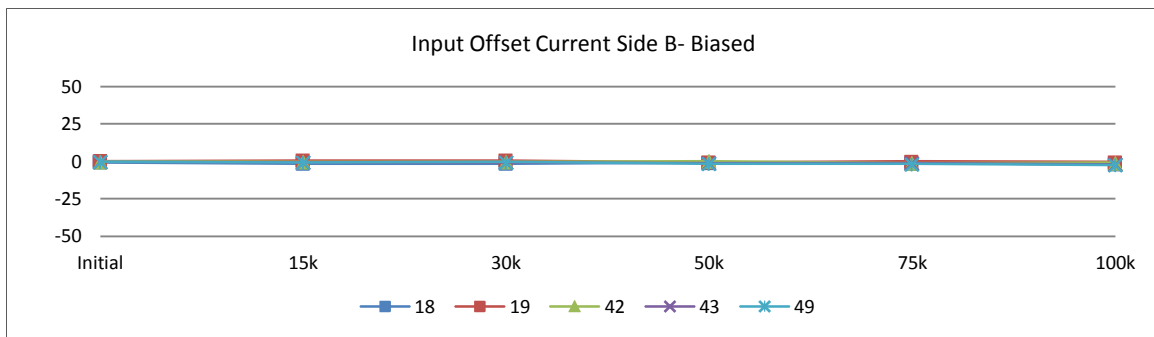
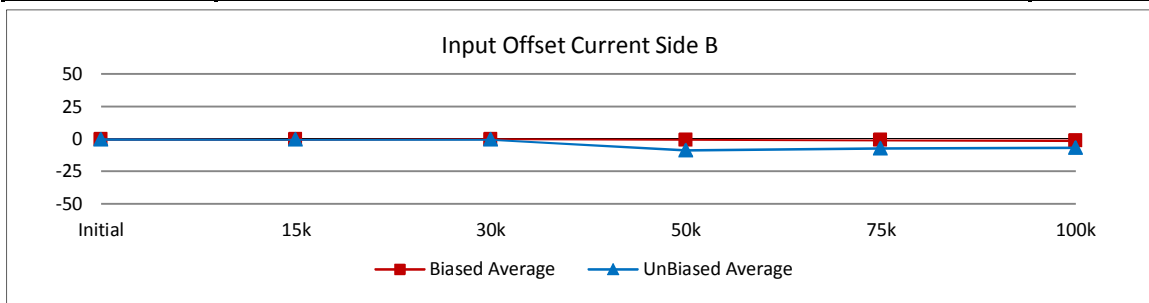
	T# 16	IB- D						nA
	SN	Initial	15k	30k	50k	75k	100k	Limit
Control	16	2.800	2.758	2.691	2.791	2.899	2.926	+/-500
	40	4.409	4.348	2.902	4.474	4.403	4.599	
	46	4.458	4.373	4.355	4.123	4.248	4.259	
Biased	18	3.136	12.535	33.067	55.223	72.269	88.047	
	19	4.342	13.256	33.414	55.812	73.714	89.499	
	42	3.632	12.111	29.516	49.577	64.692	80.263	
	43	3.603	12.419	30.333	51.259	66.410	81.512	
	48	2.965	10.871	27.929	48.687	64.480	77.856	
	49	3.690	13.659	32.829	55.109	71.025	88.685	
	Min	2.965	10.871	27.929	48.687	64.480	77.856	
	Max	4.342	13.659	33.414	55.812	73.714	89.499	
	Average	3.561	12.475	31.181	52.611	68.765	84.310	
UnBiased	20	4.800	14.944	58.082	135.665	213.363	307.985	
	21	4.049	15.549	57.906	132.831	211.689	308.838	
	44	4.519	12.133	47.951	112.966	186.241	271.246	
	45	4.407	12.744	50.416	123.385	198.172	285.340	
	50	4.379	12.127	55.789	137.775	222.628	319.301	
	55	2.240	9.584	44.170	113.646	185.578	265.902	
	Min	2.240	9.584	44.170	112.966	185.578	265.902	
	Max	4.800	15.549	58.082	137.775	222.628	319.301	
Average	4.066	12.847	52.386	126.045	202.945	293.102		



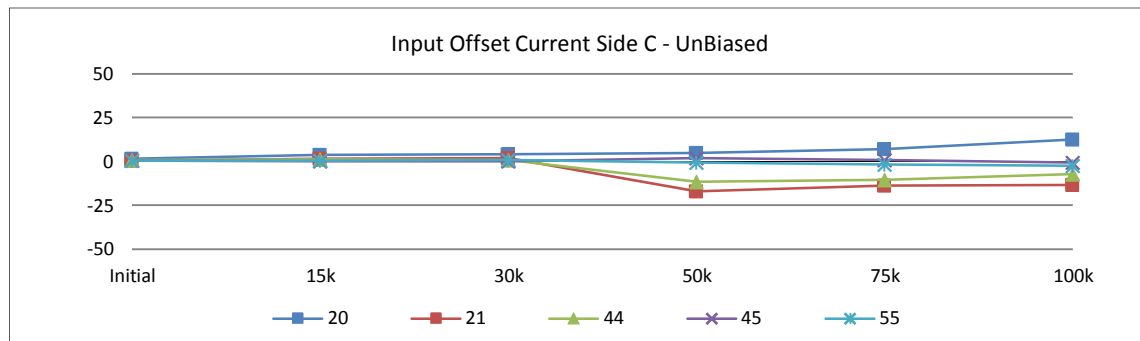
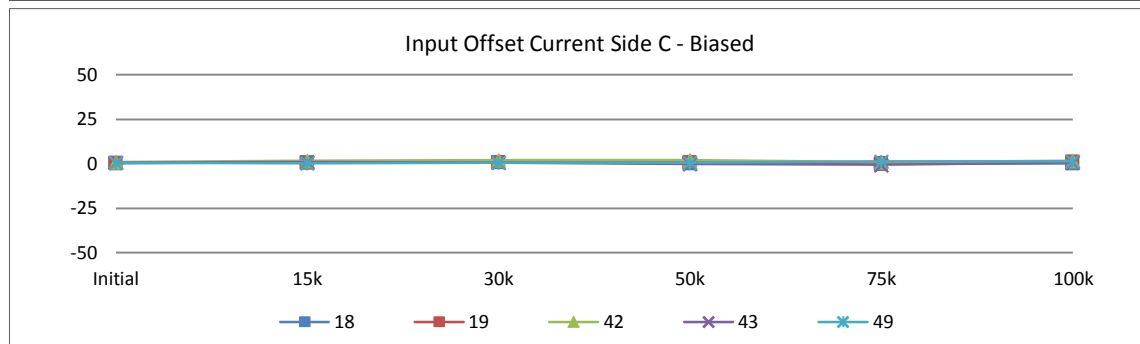
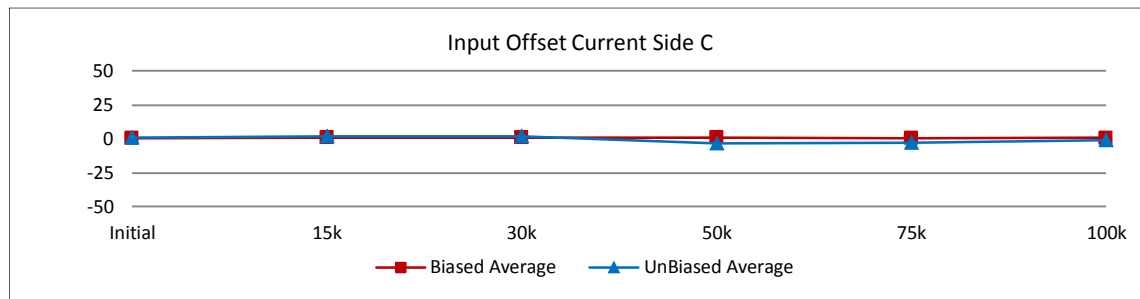
	T# 17	IOS A						nA
	SN	Initial	15k	30k	50k	75k	100k	Limit
Control	16	-0.365	-0.370	-0.311	-0.441	-0.545	-0.548	+/-50
	40	0.010	0.105	0.039	-0.011	-0.155	-0.150	
	46	-0.618	-0.516	-0.551	-1.073	-1.196	-1.162	
Biased	18	-0.370	-0.064	-1.130	-1.439	-1.065	-2.261	
	19	-0.692	-0.838	-0.506	-1.682	-3.097	-2.040	
	42	-0.133	-0.973	-0.942	-0.846	-1.839	-0.922	
	43	-0.509	-0.660	-1.612	-2.161	-2.665	-2.674	
	48	0.542	-0.256	0.441	0.907	0.724	-0.004	
	49	0.000	0.080	-0.780	-1.014	-0.249	-1.042	
	Min	-0.692	-0.973	-1.612	-2.161	-3.097	-2.674	
	Max	0.542	0.080	0.441	0.907	0.724	-0.004	
Average	-0.194	-0.452	-0.755	-1.039	-1.365	-1.491		
UnBiased	20	-0.137	-1.386	-0.685	-0.420	-0.166	-1.757	
	21	-0.257	-0.990	-0.338	-27.840	-19.172	-13.109	
	44	-0.134	-0.525	-1.050	-22.615	-19.017	-14.918	
	45	-1.071	-0.991	-1.213	-0.375	-0.909	-2.731	
	50	0.206	0.040	-0.118	-0.270	0.180	1.242	
	55	-0.104	-0.937	-1.212	-3.193	-3.639	-6.356	
	Min	-1.071	-1.386	-1.213	-27.840	-19.172	-14.918	
	Max	0.206	0.040	-0.118	-0.270	0.180	1.242	
Average	-0.250	-0.798	-0.769	-9.119	-7.121	-6.272		



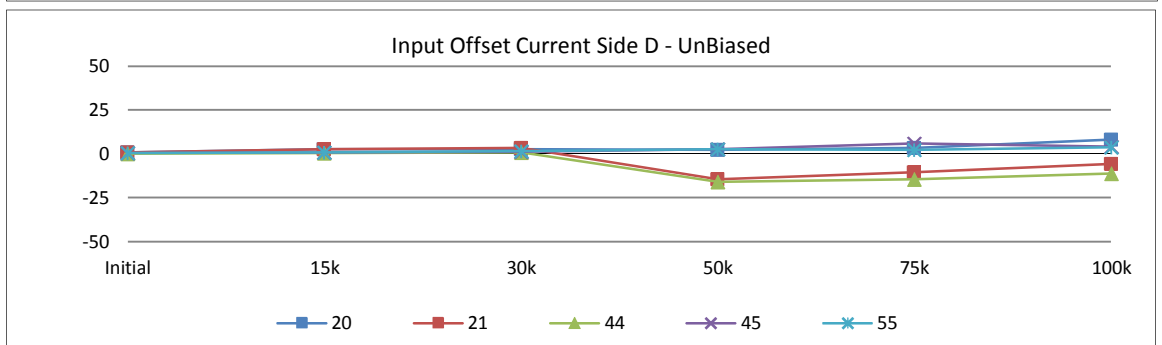
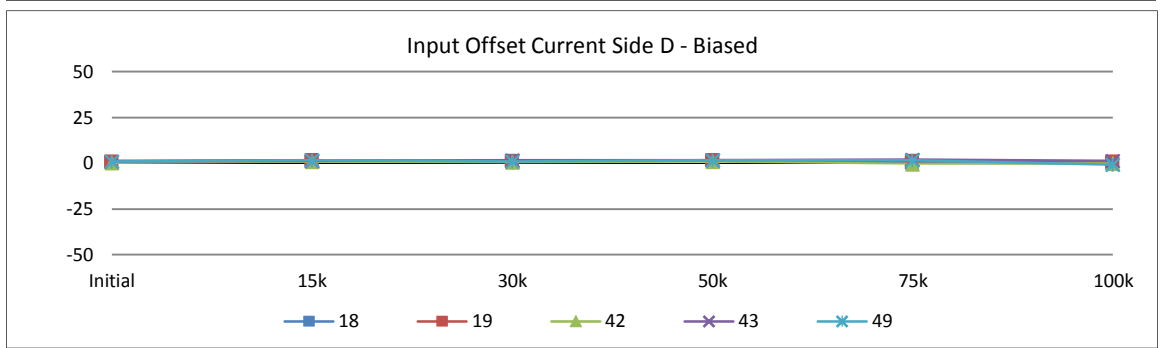
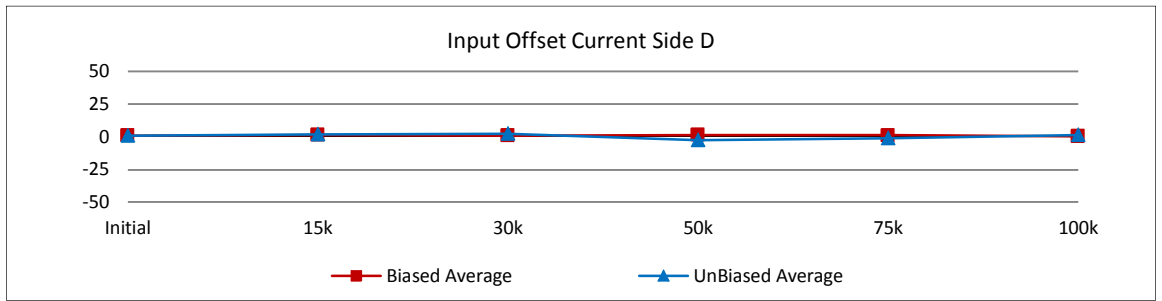
	T# 18	IOS B						nA
	SN	Initial	15k	30k	50k	75k	100k	Limit
Control	16	-0.719	-0.679	-0.601	-0.611	-0.717	-0.731	+/-50
	40	-0.486	-0.412	-0.923	-0.506	-0.544	-0.597	
	46	-0.290	-0.355	-0.253	-0.081	-0.241	-0.222	
Biased	18	-0.775	-1.680	-1.600	-1.102	-1.414	-1.923	
	19	0.055	0.496	0.691	-0.621	-0.114	-0.591	
	42	-0.199	-0.333	-0.400	0.023	-0.989	-0.978	
	43	-0.440	-0.854	-0.843	-1.158	-1.282	-1.968	
	48	-0.300	-0.894	-0.237	-1.218	-0.731	-0.751	
	49	-0.302	-0.854	-0.507	-1.577	-1.913	-2.412	
	Min	-0.775	-1.680	-1.600	-1.577	-1.913	-2.412	
	Max	0.055	0.496	0.691	0.023	-0.114	-0.591	
	Average	-0.327	-0.687	-0.483	-0.942	-1.074	-1.437	
	UnBiased	20	-0.521	-0.141	1.238	2.370	1.950	2.417
21		-0.305	-0.876	-1.189	-26.762	-19.158	-18.333	
44		-0.063	0.149	-0.625	-21.567	-16.470	-12.915	
45		-0.315	-0.717	-0.873	0.125	0.608	0.685	
50		-1.233	-2.401	-2.806	-5.254	-8.281	-10.154	
55		-0.436	0.021	-0.057	-0.945	-3.205	-3.301	
Min		-1.233	-2.401	-2.806	-26.762	-19.158	-18.333	
Max		-0.063	0.149	1.238	2.370	1.950	2.417	
Average	-0.479	-0.661	-0.719	-8.672	-7.426	-6.934		



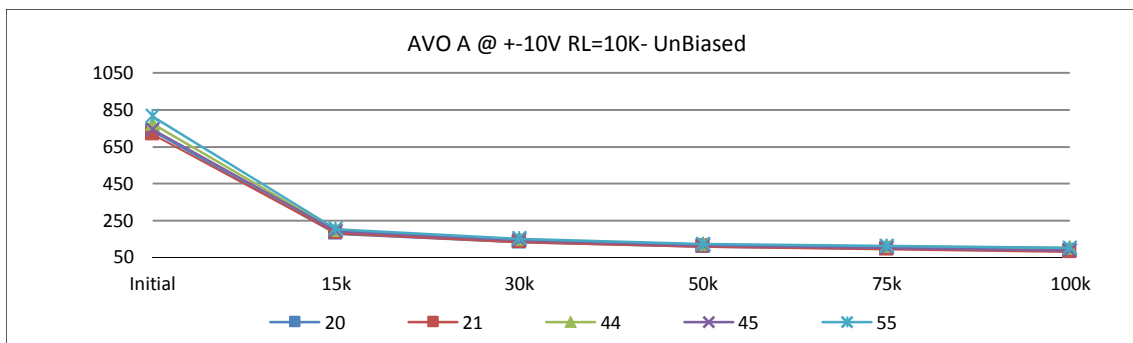
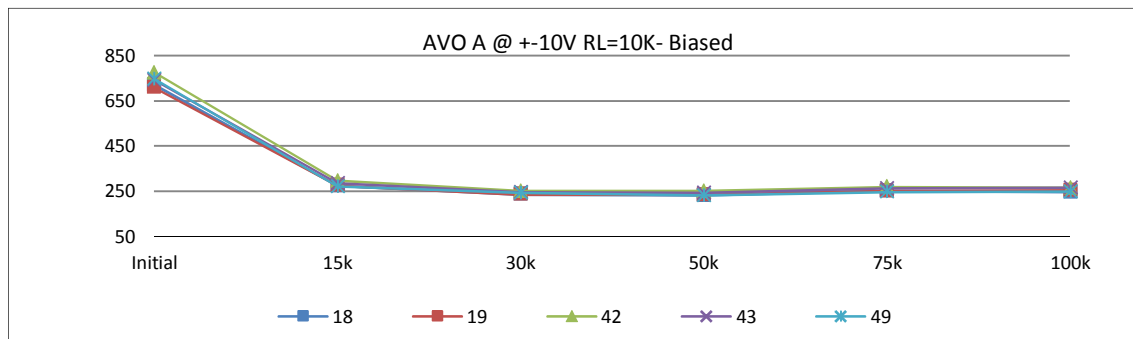
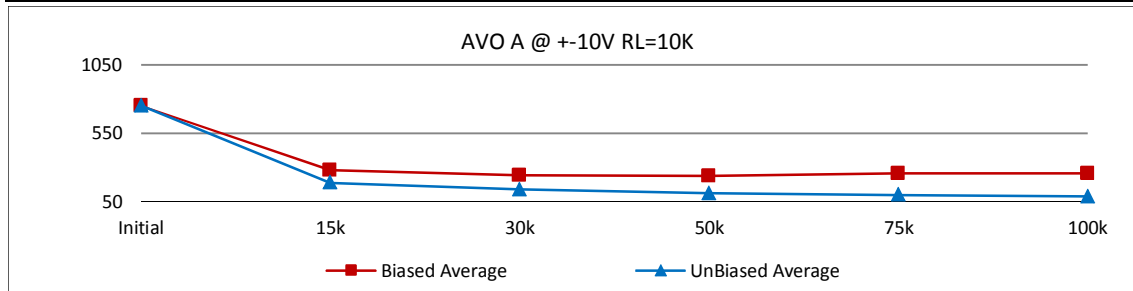
	T# 19	IOS C						nA
	SN	Initial	15k	30k	50k	75k	100k	Limit
Control	16	0.550	0.514	0.459	0.602	0.463	0.483	+/-50
	40	0.991	0.989	0.371	1.021	0.910	0.935	
	46	0.796	0.831	0.850	0.871	0.743	0.744	
Biased	18	0.331	0.961	0.750	0.015	-0.020	0.038	
	19	0.563	0.622	0.797	1.047	0.173	1.188	
	42	1.052	1.637	1.970	2.114	0.946	1.570	
	43	0.504	0.993	0.425	-0.030	-0.721	0.577	
	48	0.044	-0.061	0.444	0.536	0.455	-0.874	
	49	0.492	0.233	0.492	0.667	1.096	1.175	
	Min	0.044	-0.061	0.425	-0.030	-0.721	-0.874	
	Max	1.052	1.637	1.970	2.114	1.096	1.570	
	Average	0.498	0.731	0.813	0.725	0.322	0.612	
	UnBiased	20	1.513	3.764	4.331	4.934	7.209	12.741
21		0.732	1.707	2.052	-16.826	-13.755	-13.172	
44		0.796	1.217	0.820	-11.417	-10.257	-6.935	
45		0.727	0.343	0.330	1.886	0.907	-0.488	
50		1.110	2.197	1.498	2.287	1.092	3.195	
55		0.658	0.527	1.041	-0.626	-1.415	-2.297	
Min		0.658	0.343	0.330	-16.826	-13.755	-13.172	
Max		1.513	3.764	4.331	4.934	7.209	12.741	
Average	0.923	1.626	1.679	-3.294	-2.703	-1.159		



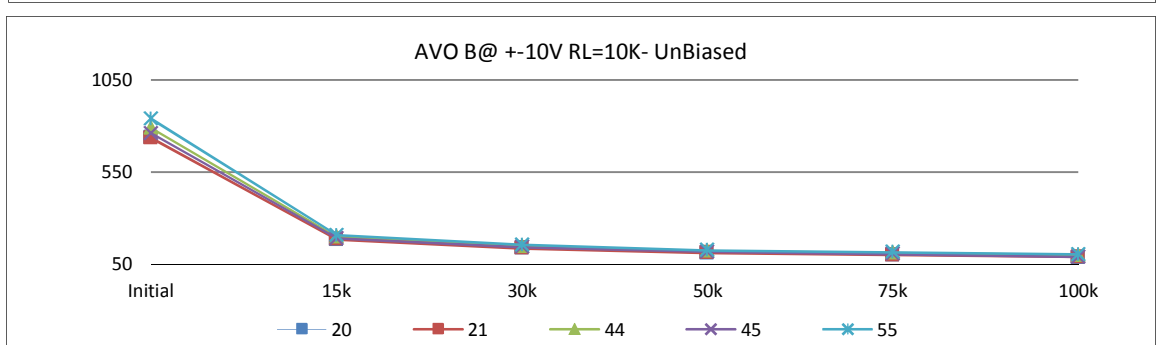
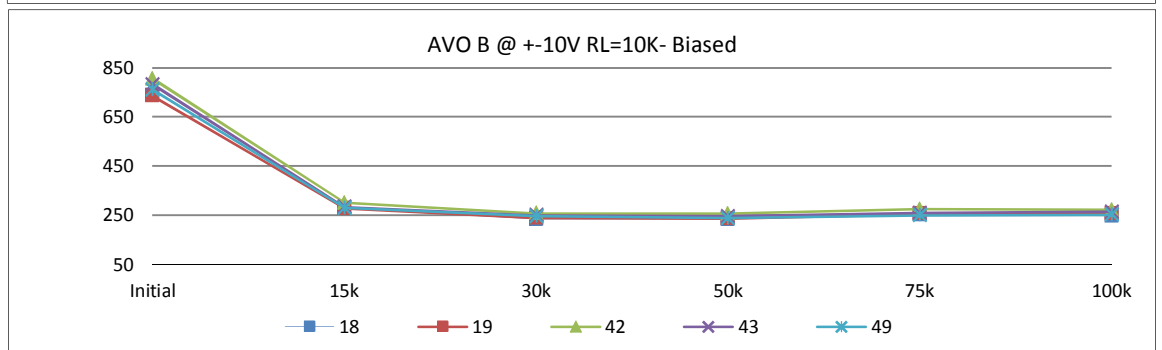
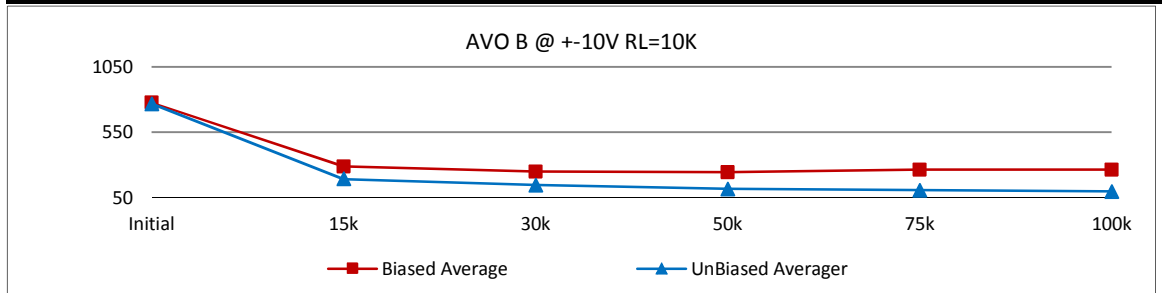
	T# 20	IOS D						nA
	SN	Initial	15k	30k	50k	75k	100k	Limit
Control	16	0.444	0.407	0.460	0.417	0.288	0.320	+/-50
	40	0.924	0.879	1.408	0.816	0.695	0.633	
	46	0.669	0.841	0.717	0.374	0.262	0.253	
Biased	18	0.643	0.873	1.148	1.608	0.275	-0.178	
	19	1.108	1.768	1.024	1.523	1.187	0.841	
	42	0.166	0.923	0.663	0.874	-0.287	-0.043	
	43	0.796	1.146	1.601	1.674	1.946	1.179	
	48	0.730	0.458	0.281	1.443	1.725	1.755	
	49	0.827	1.583	1.030	1.625	1.523	-0.813	
	Min	0.166	0.458	0.281	0.874	-0.287	-0.813	
	Max	1.108	1.768	1.601	1.674	1.946	1.755	
	Average	0.712	1.125	0.958	1.458	1.062	0.457	
	UnBiased	20	0.999	2.776	2.647	2.397	3.417	8.259
21		1.057	2.819	3.425	-14.479	-10.383	-5.554	
44		0.070	0.397	0.948	-15.928	-14.358	-11.281	
45		0.682	0.831	1.384	2.554	5.899	4.005	
50		1.335	2.606	3.251	6.058	6.607	8.387	
55		0.572	0.971	1.437	2.528	2.325	3.667	
Min		0.070	0.397	0.948	-15.928	-14.358	-11.281	
Max		1.335	2.819	3.425	6.058	6.607	8.387	
Average	0.786	1.733	2.182	-2.812	-1.082	1.247		



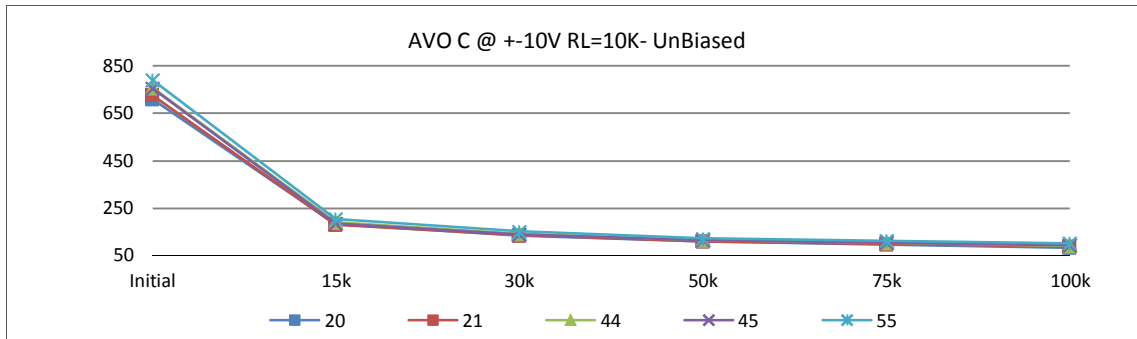
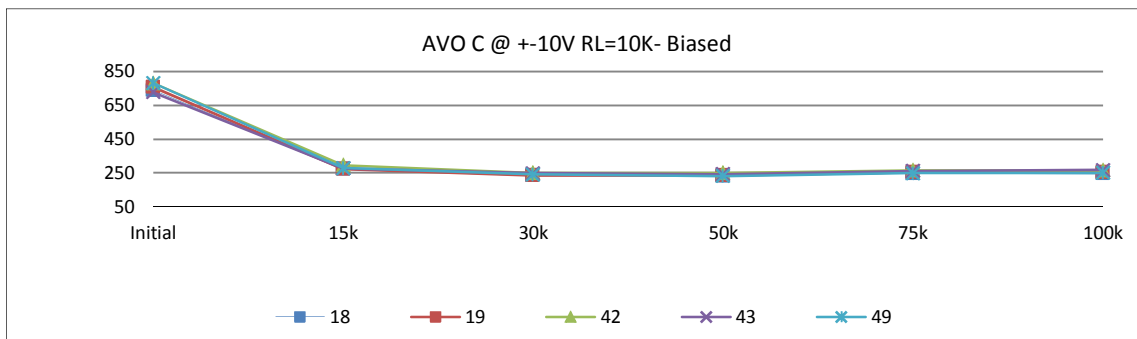
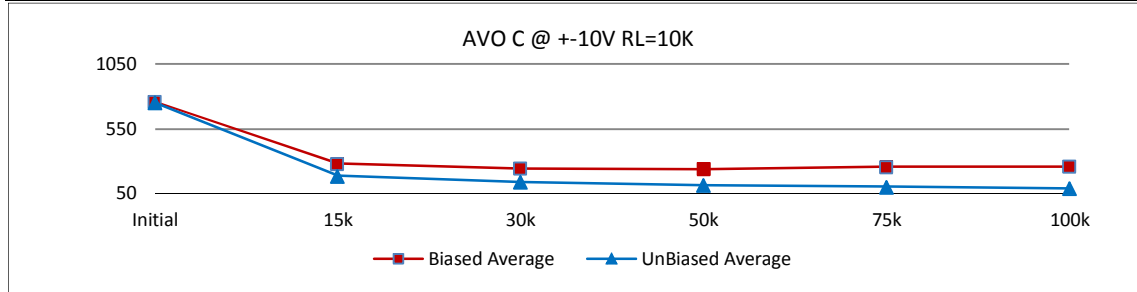
T# 25		AVO A @ +-10V RL=10K						V/mV
SN		Initial	15k	30k	50k	75k	100k	Limit
Control	16	795.538	781.016	746.086	782.646	812.641	850.588	>50
	40	737.301	730.621	784.282	761.082	766.499	773.345	
	46	721.257	751.710	733.183	751.668	816.281	765.870	
Biased	18	720.972	275.204	236.647	232.704	253.340	247.628	
	19	709.192	276.247	237.479	234.500	253.411	254.723	
	42	775.900	297.770	251.121	252.808	270.727	267.471	
	43	742.406	286.223	246.336	244.043	263.791	267.628	
	48	809.312	290.974	257.034	250.963	264.634	266.766	
	49	747.581	272.979	243.311	231.111	248.708	249.937	
	Min	709.192	272.979	236.647	231.111	248.708	247.628	
	Max	809.312	297.770	257.034	252.808	270.727	267.628	
	Average	750.894	283.233	245.321	241.022	259.102	259.026	
	UnBiased	20	735.516	180.599	134.415	109.217	99.016	
21		718.415	184.324	136.253	111.434	96.428	82.304	
44		775.570	198.127	149.961	122.690	111.905	101.395	
45		745.137	193.520	145.057	117.427	104.029	89.817	
50		734.923	187.818	138.132	110.261	98.189	83.592	
55		815.102	205.915	153.639	123.874	113.898	101.809	
Min		718.415	180.599	134.415	109.217	96.428	82.304	
Max		815.102	205.915	153.639	123.874	113.898	101.809	
Average		754.111	191.717	142.910	115.817	103.911	91.242	



	T# 26	AVO B @ +-10V RL=10K						V/mV
	SN	Initial	15k	30k	50k	75k	100k	Limit
Control	16	819.868	799.513	800.116	827.026	859.393	876.356	>50
	40	753.763	755.761	800.819	774.664	783.975	797.369	
	46	731.092	745.866	764.868	750.430	810.473	799.468	
Biased	18	738.197	277.720	234.757	234.199	252.673	247.560	
	19	735.516	278.186	239.256	236.569	256.117	257.494	
	42	806.092	301.613	259.190	256.074	276.101	272.633	
	43	783.234	285.327	250.913	246.918	259.731	264.674	
	48	831.839	302.263	264.262	256.977	274.231	275.019	
	49	762.273	281.233	247.406	238.394	250.761	253.624	
	Min	735.516	277.720	234.757	234.199	250.761	247.560	
	Max	831.839	302.263	264.262	256.977	276.101	275.019	
	Average	776.192	287.724	249.297	244.855	261.602	261.834	
	UnBiased	20	737.599	184.045	136.960	110.381	100.473	
21		735.516	184.511	137.114	111.495	100.801	89.481	
44		789.338	198.277	149.200	122.739	111.365	100.152	
45		761.001	189.694	143.855	116.690	104.650	90.012	
50		757.207	183.841	137.642	110.891	100.468	89.271	
55		839.114	208.362	155.473	125.910	114.831	103.245	
Min		735.516	183.841	136.960	110.381	100.468	85.998	
Max		839.114	208.362	155.473	125.910	114.831	103.245	
Average		769.963	191.455	143.374	116.351	105.431	93.027	



T# 27		AVO C @ +-10V RL=10K						V/mV
SN		Initial	15k	30k	50k	75k	100k	Limit
Control	16	793.116	764.958	782.263	768.460	829.282	810.850	>50
	40	750.351	762.080	763.586	736.485	769.412	767.160	
	46	734.035	731.207	770.362	712.592	793.188	770.729	
Biased	18	737.898	270.669	231.979	230.323	246.587	243.850	
	19	754.700	272.001	234.094	231.993	252.848	253.659	
	42	779.550	292.655	248.079	247.253	264.289	261.935	
	43	726.430	274.458	246.037	241.170	258.589	264.790	
	48	776.561	289.679	252.058	246.818	262.500	265.368	
	49	779.883	276.414	238.598	231.140	246.587	247.830	
	Min	726.430	270.669	231.979	230.323	246.587	243.850	
	Max	779.883	292.655	252.058	247.253	264.289	265.368	
	Average	759.170	279.313	241.808	238.116	255.233	256.239	
UnBiased	20	708.916	180.313	133.675	108.200	95.819	81.429	
	21	726.720	179.532	134.197	109.355	98.051	87.404	
	44	756.893	189.497	141.094	114.535	104.035	89.706	
	45	755.638	183.434	138.953	112.834	102.878	92.681	
	50	767.731	181.209	133.607	107.062	96.827	86.875	
	55	790.708	202.371	150.357	120.732	110.153	99.632	
	Min	708.916	179.532	133.607	107.062	95.819	81.429	
	Max	790.708	202.371	150.357	120.732	110.153	99.632	
	Average	751.101	186.059	138.647	112.120	101.294	89.621	



T# 28		AVO D @ +-10V RL=10K						V/mV
SN		Initial	15k	30k	50k	75k	100k	Limit
Control	16	771.957	721.084	772.321	774.994	801.914	807.259	>50
	40	750.351	757.331	749.768	731.755	786.683	787.719	
	46	711.961	743.130	742.439	727.957	785.665	805.119	
Biased	18	744.224	269.389	229.381	230.206	248.233	248.879	
	19	743.011	267.924	232.393	228.275	246.188	241.492	
	42	787.633	288.259	249.403	245.290	262.386	266.260	
	43	727.010	279.465	248.181	242.034	259.030	264.137	
	48	771.957	290.048	254.415	242.840	261.483	260.587	
	49	767.408	274.582	235.729	230.265	246.487	250.177	
	Min	727.010	267.924	229.381	228.275	246.188	241.492	
Max	787.633	290.048	254.415	245.290	262.386	266.260		
Average	756.874	278.278	241.584	236.485	253.968	255.255		
UnBiased	20	695.130	179.073	132.250	106.041	94.151	80.249	
	21	738.795	182.114	134.723	109.381	95.729	81.835	
	44	768.378	193.706	142.517	117.215	106.778	95.502	
	45	736.408	186.397	141.236	112.701	103.433	88.059	
	50	755.325	185.732	133.734	106.742	96.422	81.527	
	55	778.551	196.779	145.415	118.088	107.268	94.136	
	Min	695.130	179.073	132.250	106.041	94.151	80.249	
	Max	778.551	196.779	145.415	118.088	107.268	95.502	
Average	745.431	187.300	138.313	111.695	100.630	86.885		

