

RADIATION TEST REPORT

| | |
|---------------|--|
| PRODUCT: | AD8367L703F |
| GAMMA: | 15k, 34k, 53k, 77k, 101k/ TM1019 Condition D |
| GAMMA SOURCE: | Co60 |
| DOSE RATE: | 8.9 mRad(si)/s |
| FACILITIES: | Si-Rel |
| TESTED: | 2/20/13 - 7/15/13 |

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.

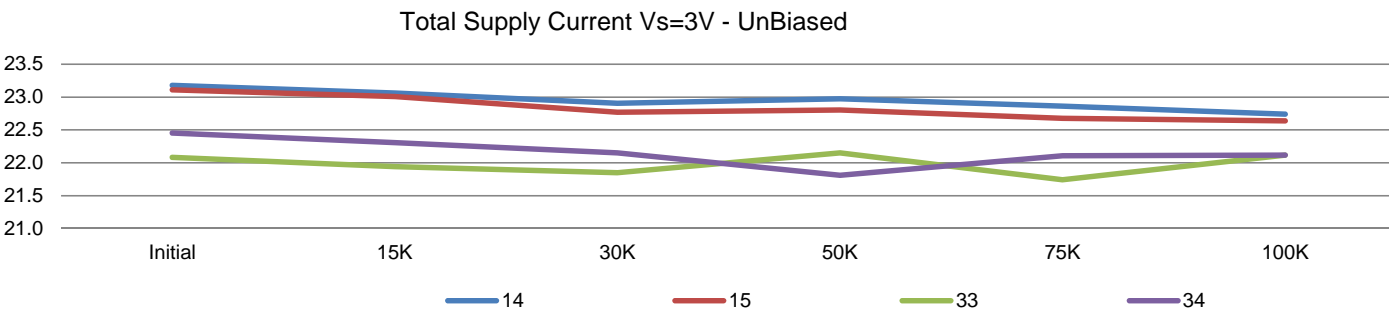
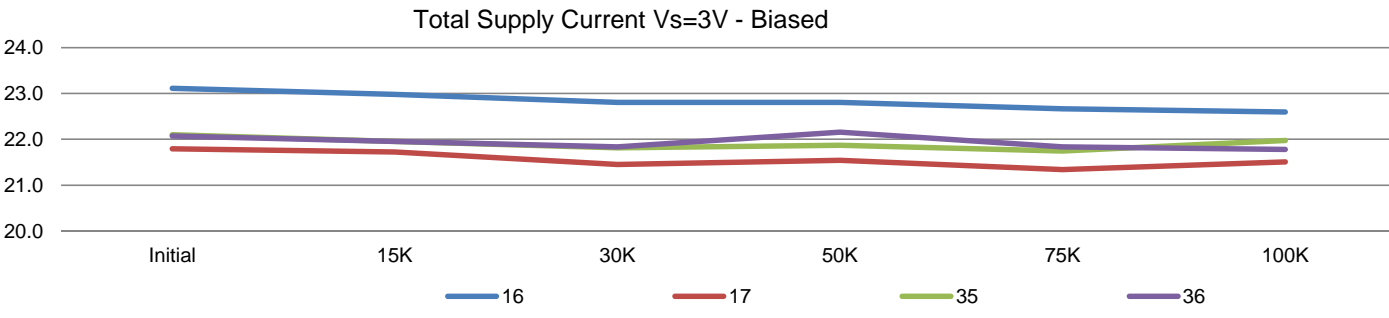
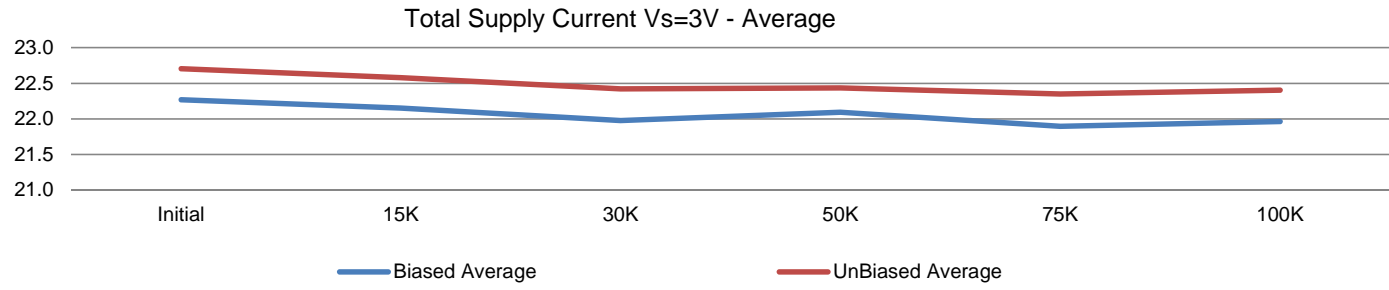
It is the responsibility of the Procuring Activity to screen products from Analog Devices, Inc. for compliance to Nuclear Hardness Critical Items (HCI) specifications.

WARNING:

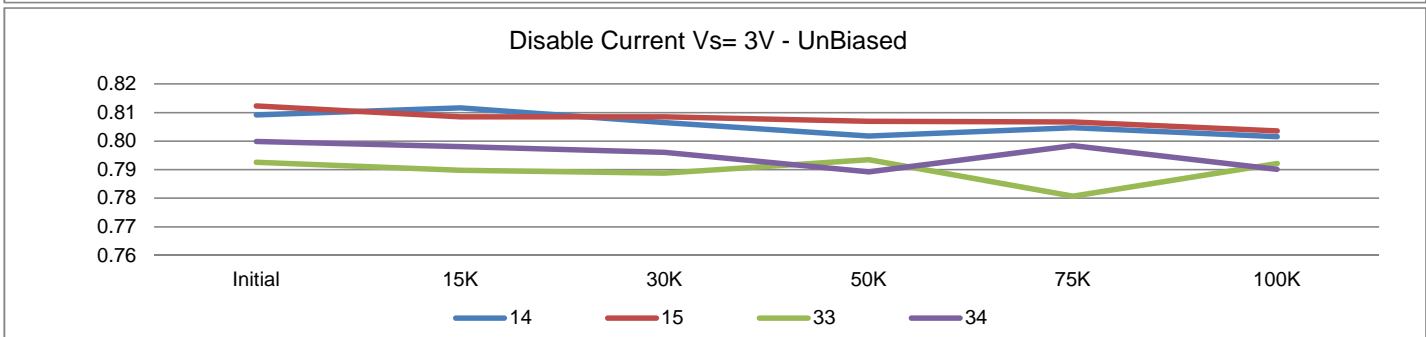
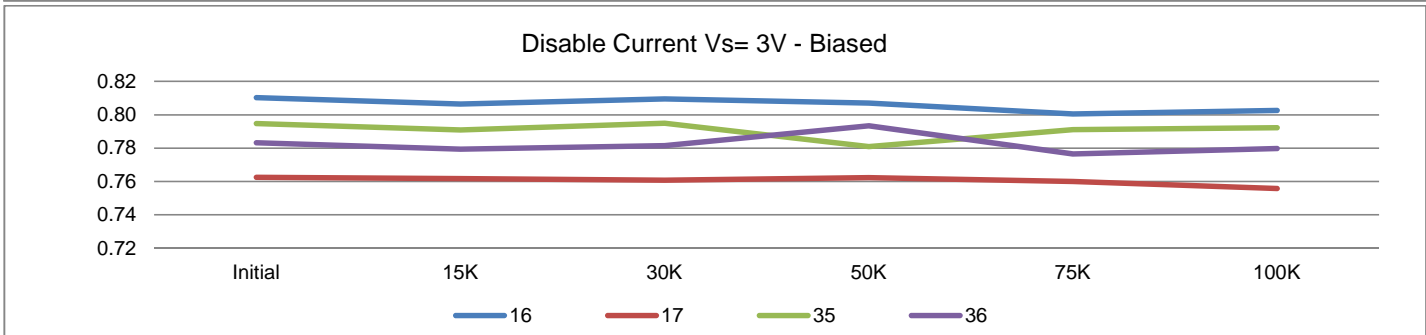
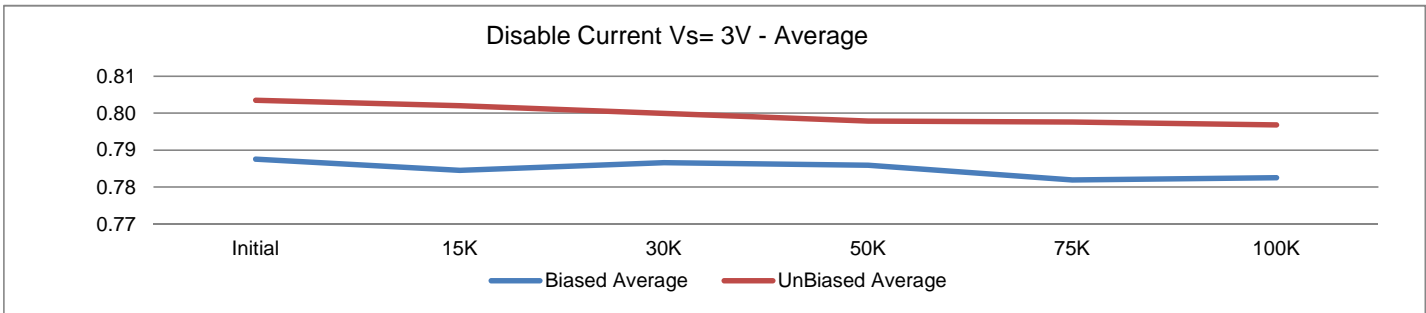
Analog Devices, Inc. does not recommend use of this data to qualify other product grades or process levels. Analog Devices, Inc. is not responsible and has no liability for any consequences, and all applicable Warranties are null and void if any Analog product is modified in any way or used outside of 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 | 3V Total Supply Current | | | | | | | mA |
|----------|-------------------------|---------|---------|---------|---------|---------|---------|-----|
| SN | Initial | 15K | 30K | 50K | 75K | 100K | Limit | |
| Control | 18 | 22.1640 | 22.0658 | 21.9619 | 22.2147 | 22.0545 | 22.0155 | <30 |
| | 40 | 22.5380 | 22.5542 | 22.3360 | 22.6407 | 22.6675 | 22.6285 | |
| Biased | 16 | 23.1096 | 22.9802 | 22.8036 | 22.8069 | 22.6675 | 22.5974 | |
| | 17 | 21.7899 | 21.7230 | 21.4528 | 21.5393 | 21.3375 | 21.5064 | |
| | 35 | 22.1016 | 21.9515 | 21.8165 | 21.8718 | 21.7427 | 21.9739 | |
| | 36 | 22.0705 | 21.9515 | 21.8372 | 22.1523 | 21.8363 | 21.7765 | |
| | Min | 21.7899 | 21.7230 | 21.4528 | 21.5393 | 21.3375 | 21.5064 | |
| | Max | 23.1096 | 22.9802 | 22.8036 | 22.8069 | 22.6675 | 22.5974 | |
| | Average | 22.2679 | 22.1516 | 21.9775 | 22.0926 | 21.8960 | 21.9635 | |
| UnBiased | 14 | 23.1823 | 23.0633 | 22.9075 | 22.9732 | 22.8649 | 22.7428 | |
| | 15 | 23.1096 | 23.0114 | 22.7724 | 22.8069 | 22.6779 | 22.6389 | |
| | 33 | 22.0808 | 21.9412 | 21.8476 | 22.1523 | 21.7427 | 22.1194 | |
| | 34 | 22.4549 | 22.3048 | 22.1490 | 21.8094 | 22.1064 | 22.1194 | |
| | Min | 22.0808 | 21.9412 | 21.8476 | 21.8094 | 21.7427 | 22.1194 | |
| | Max | 23.1823 | 23.0633 | 22.9075 | 22.9732 | 22.8649 | 22.7428 | |
| | Average | 22.7069 | 22.5802 | 22.4191 | 22.4355 | 22.3480 | 22.4051 | |

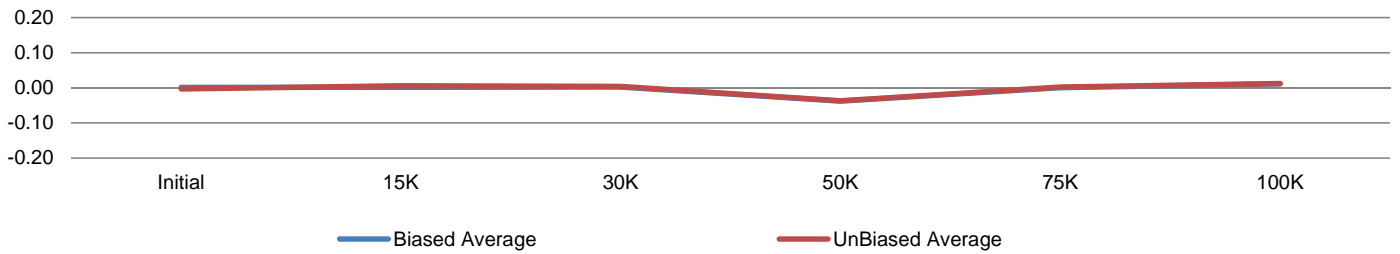


| | T# 2 | 3V Disable Current | | | | | | mA |
|----------|---------|--------------------|--------|--------|--------|--------|--------|-------|
| | SN | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 0.7728 | 0.7783 | 0.7773 | 0.7705 | 0.7755 | 0.7734 | <1.6 |
| | 40 | 0.7978 | 0.7960 | 0.7981 | 0.7976 | 0.7932 | 0.7984 | |
| Biased | 16 | 0.8102 | 0.8064 | 0.8096 | 0.8070 | 0.8005 | 0.8026 | |
| | 17 | 0.7624 | 0.7617 | 0.7606 | 0.7622 | 0.7599 | 0.7557 | |
| | 35 | 0.7946 | 0.7908 | 0.7950 | 0.7809 | 0.7911 | 0.7922 | |
| | 36 | 0.7832 | 0.7794 | 0.7815 | 0.7934 | 0.7765 | 0.7797 | |
| | Min | 0.7624 | 0.7617 | 0.7606 | 0.7622 | 0.7599 | 0.7557 | |
| | Max | 0.8102 | 0.8064 | 0.8096 | 0.8070 | 0.8005 | 0.8026 | |
| | Average | 0.7876 | 0.7846 | 0.7867 | 0.7859 | 0.7820 | 0.7825 | |
| UnBiased | 14 | 0.8092 | 0.8117 | 0.8064 | 0.8018 | 0.8046 | 0.8015 | |
| | 15 | 0.8123 | 0.8085 | 0.8085 | 0.8070 | 0.8067 | 0.8036 | |
| | 33 | 0.7926 | 0.7898 | 0.7887 | 0.7934 | 0.7807 | 0.7922 | |
| | 34 | 0.7998 | 0.7981 | 0.7960 | 0.7893 | 0.7984 | 0.7901 | |
| | Min | 0.7926 | 0.7898 | 0.7887 | 0.7893 | 0.7807 | 0.7901 | |
| | Max | 0.8123 | 0.8117 | 0.8085 | 0.8070 | 0.8067 | 0.8036 | |
| | Average | 0.8035 | 0.8020 | 0.7999 | 0.7979 | 0.7976 | 0.7969 | |

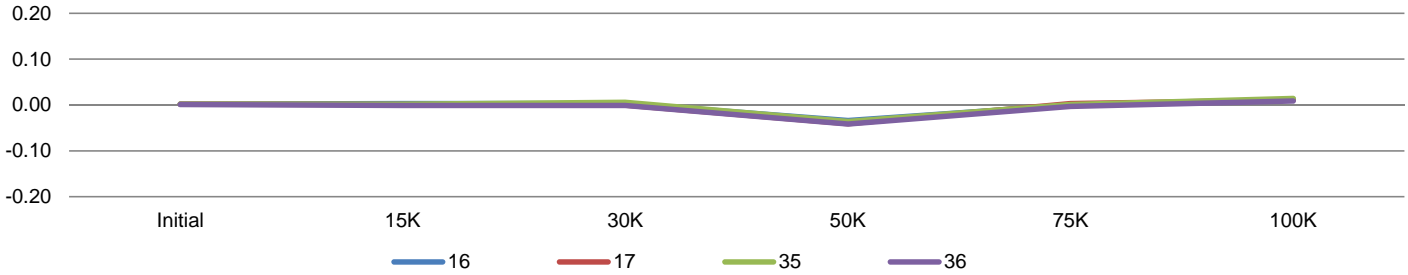


| T# 3 | | 3V IIL ENBL @ VIL min | | | | | | uA |
|----------|---------|-----------------------|----------|-------------|----------|-------------|---------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 0.00093135 | 0.00404 | -0.00025141 | -0.04054 | -0.00116 | 0.00988 | <2 |
| | 40 | 0.00308 | 0.00082 | 0.00404 | -0.04054 | -0.00008231 | 0.00988 | |
| Biased | 16 | 0.00200 | 0.00297 | 0.00297 | -0.03410 | -0.00008 | 0.01203 | |
| | 17 | 0.00200 | 0.00082 | -0.00025 | -0.04054 | 0.00314 | 0.01096 | |
| | 35 | 0.00200 | 0.00190 | 0.00619 | -0.03624 | 0.00099 | 0.01418 | |
| | 36 | 0.00093 | -0.00133 | -0.00133 | -0.04161 | -0.00330 | 0.00881 | |
| | Min | 0.00093 | -0.00133 | -0.00133 | -0.04161 | -0.00330 | 0.00881 | |
| | Max | 0.00200 | 0.00297 | 0.00619 | -0.03410 | 0.00314 | 0.01418 | |
| | Average | 0.00173 | 0.00109 | 0.00189 | -0.03812 | 0.00019 | 0.01150 | |
| UnBiased | 14 | -0.00229 | 0.00190 | 0.00190 | -0.03302 | 0.00099 | 0.01525 | |
| | 15 | -0.00444 | 0.00941 | 0.00726 | -0.03839 | 0.00529 | 0.01418 | |
| | 33 | -0.00658 | 0.00297 | -0.00133 | -0.03946 | 0.00206 | 0.00881 | |
| | 34 | 0.00093 | 0.00941 | 0.00726 | -0.03624 | -0.00008 | 0.01096 | |
| | Min | -0.00658 | 0.00190 | -0.00133 | -0.03946 | -0.00008 | 0.00881 | |
| | Max | 0.00093 | 0.00941 | 0.00726 | -0.03302 | 0.00529 | 0.01525 | |
| | Average | -0.00309 | 0.00592 | 0.00377 | -0.03678 | 0.00206 | 0.01230 | |

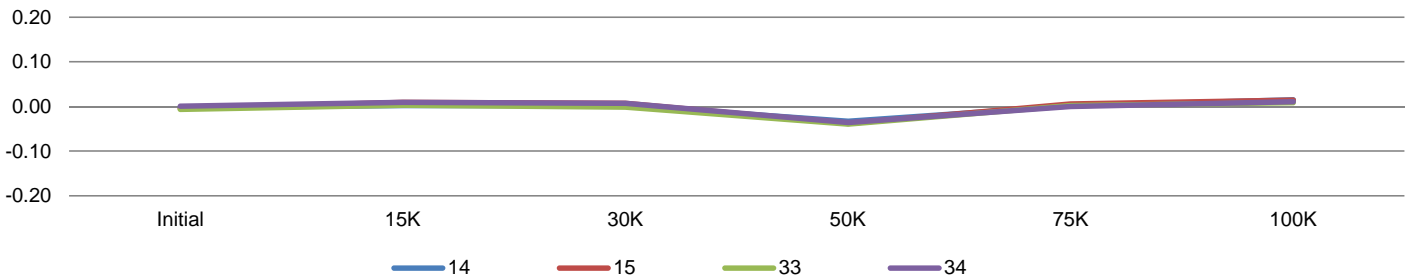
Enable Input Current Low Vs= 3V @ Vil=min - Average



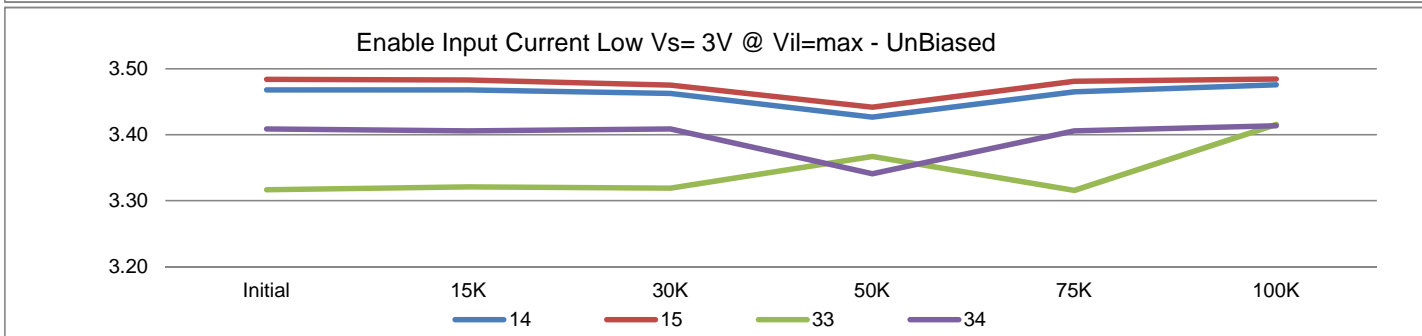
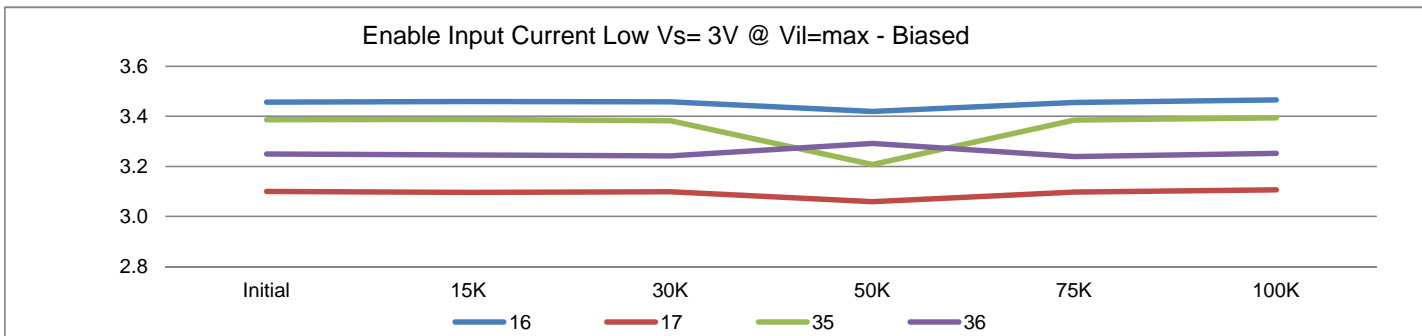
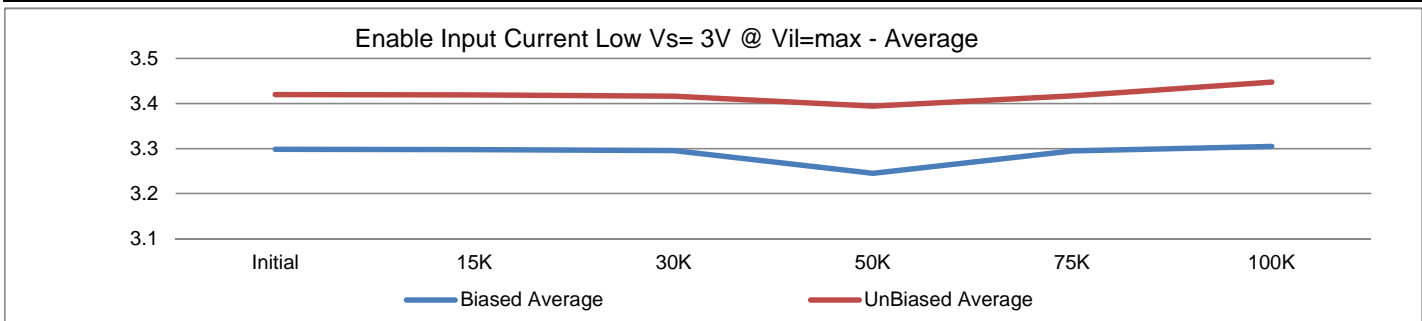
Enable Input Current Low Vs= 3V @ Vil=min - Biased



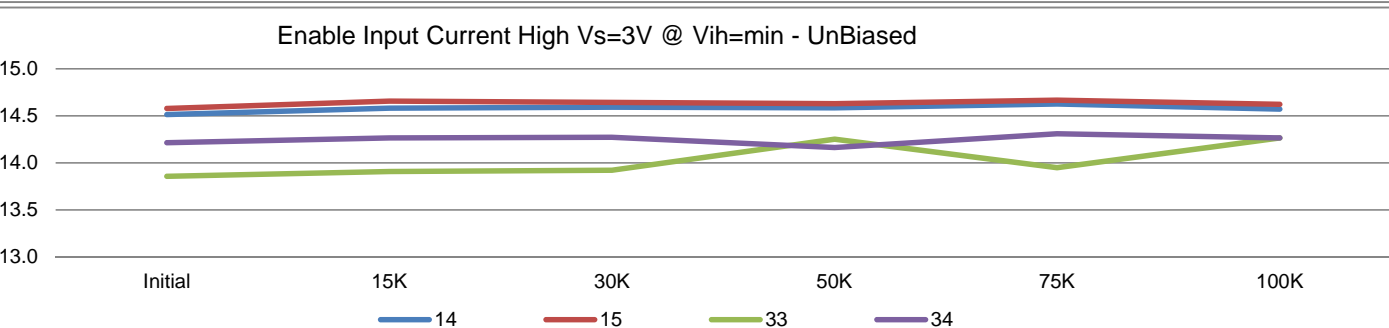
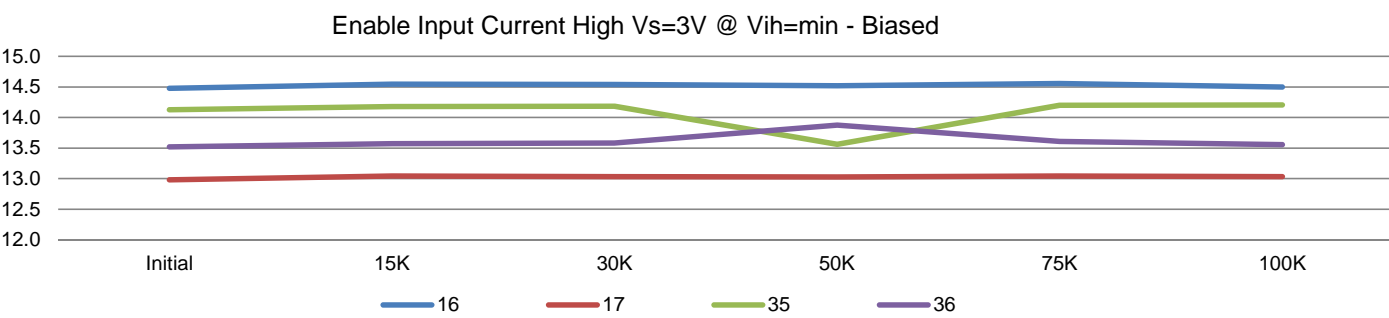
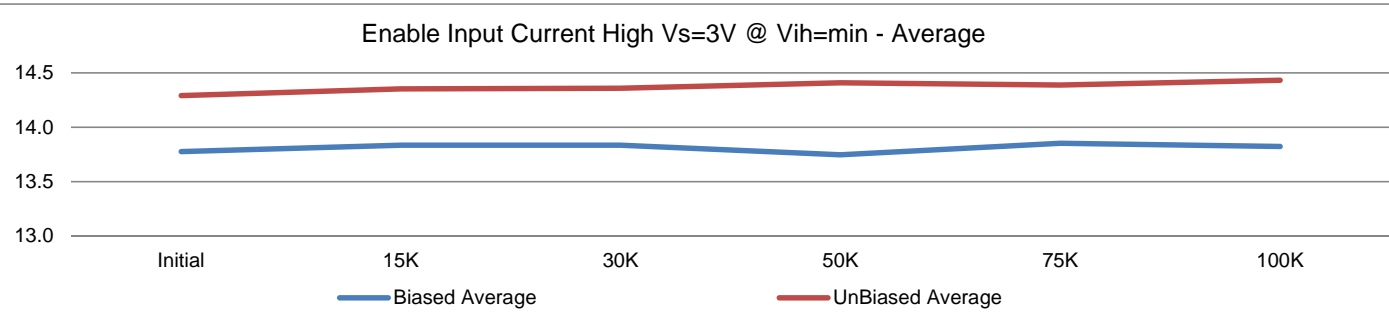
Enable Input Current Low Vs= 3V @ Vil=min - UnBiased



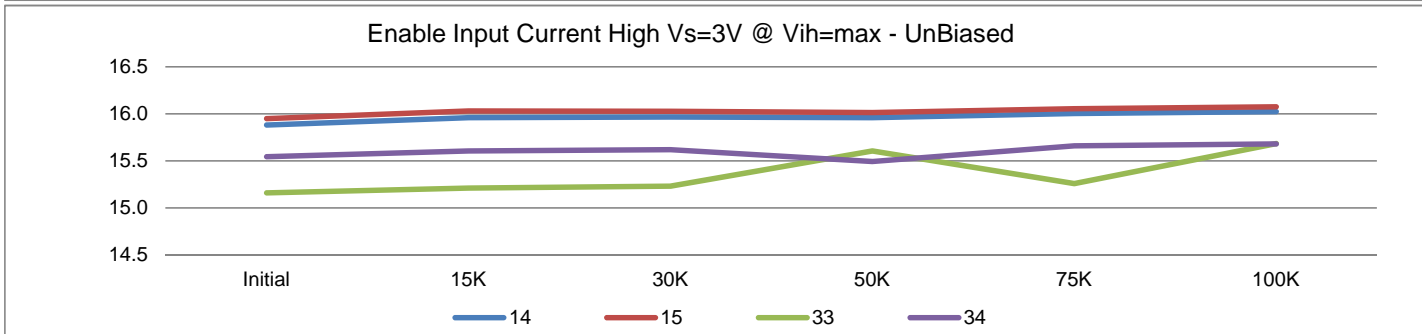
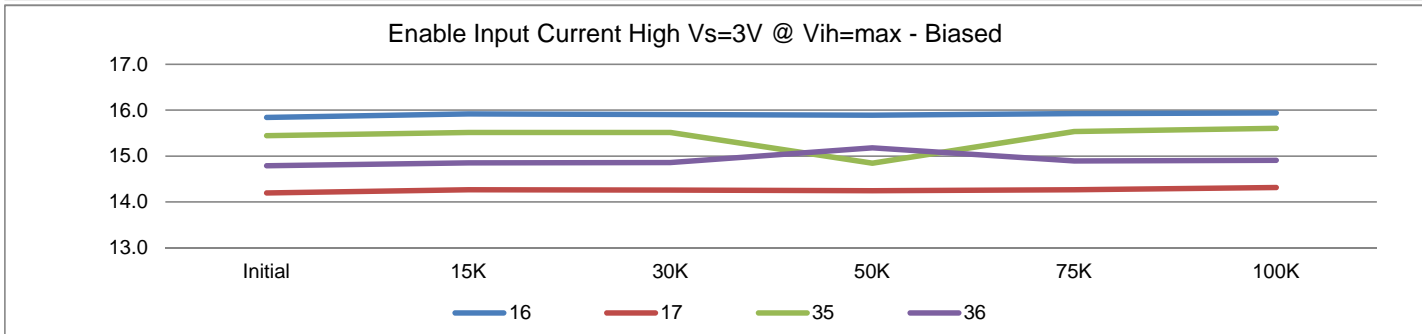
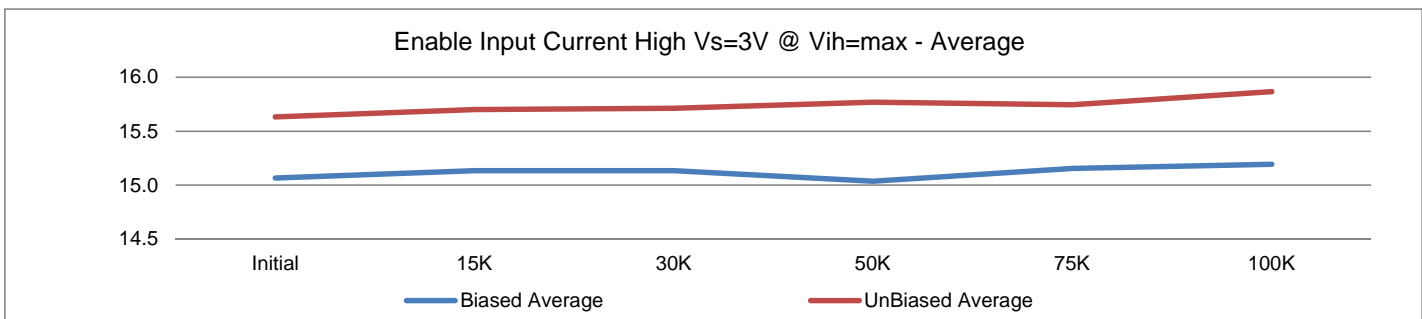
| T# 4 | | 3V IIL ENBL @ Vil max | | | | | | uA |
|----------|---------|-----------------------|---------|---------|---------|---------|---------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 3.23824 | 3.23816 | 3.23172 | 3.19711 | 3.23624 | 3.24185 | <20 |
| | 40 | 3.36814 | 3.36699 | 3.36485 | 3.3281 | 3.36722 | 3.37498 | |
| Biased | 16 | 3.45725 | 3.45932 | 3.45825 | 3.41936 | 3.45525 | 3.46516 | |
| | 17 | 3.09974 | 3.09644 | 3.09859 | 3.05967 | 3.09774 | 3.10657 | |
| | 35 | 3.38639 | 3.38739 | 3.383 | 3.20784 | 3.38547 | 3.3943 | |
| | 36 | 3.25005 | 3.24567 | 3.24245 | 3.29159 | 3.23946 | 3.25258 | |
| | Min | 3.0997 | 3.0964 | 3.0986 | 3.0597 | 3.0977 | 3.1066 | |
| | Max | 3.4573 | 3.4593 | 3.4583 | 3.4194 | 3.4553 | 3.4652 | |
| | Average | 3.2984 | 3.2972 | 3.2956 | 3.2446 | 3.2945 | 3.3047 | |
| UnBiased | 14 | 3.46799 | 3.46791 | 3.46255 | 3.42688 | 3.46492 | 3.4759 | |
| | 15 | 3.48409 | 3.48294 | 3.47543 | 3.44191 | 3.48102 | 3.48449 | |
| | 33 | 3.31661 | 3.32083 | 3.31868 | 3.36675 | 3.31568 | 3.41577 | |
| | 34 | 3.40894 | 3.40564 | 3.40886 | 3.34098 | 3.40587 | 3.41363 | |
| | Min | 3.3166 | 3.3208 | 3.3187 | 3.3410 | 3.3157 | 3.4136 | |
| | Max | 3.4841 | 3.4829 | 3.4754 | 3.4419 | 3.4810 | 3.4845 | |
| | Average | 3.4194 | 3.4193 | 3.4164 | 3.3941 | 3.4169 | 3.4474 | |



| T# 5 | | 3V IIH ENBL @ VIH min | | | | | | uA |
|----------|---------|-----------------------|----------|----------|----------|----------|----------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 13.48461 | 13.46532 | 13.45458 | 13.45207 | 13.46462 | 13.41209 | <20 |
| | 40 | 14.05684 | 14.05044 | 14.01823 | 14.03081 | 14.07551 | 14.0219 | |
| Biased | 16 | 14.47769 | 14.54538 | 14.53894 | 14.52042 | 14.55435 | 14.49751 | |
| | 17 | 12.97894 | 13.04339 | 13.03372 | 13.02473 | 13.04268 | 13.02988 | |
| | 35 | 14.12555 | 14.18035 | 14.185 | 13.56159 | 14.19898 | 14.20227 | |
| | 36 | 13.51682 | 13.57268 | 13.58234 | 13.87404 | 13.60849 | 13.55703 | |
| | Min | 12.9789 | 13.0434 | 13.0337 | 13.0247 | 13.0427 | 13.0299 | |
| | Max | 14.4777 | 14.5454 | 14.5389 | 14.5204 | 14.5544 | 14.4975 | |
| | Average | 13.7748 | 13.8355 | 13.8349 | 13.7452 | 13.8511 | 13.8217 | |
| UnBiased | 14 | 14.51419 | 14.58296 | 14.59262 | 14.58592 | 14.62521 | 14.57052 | |
| | 15 | 14.57861 | 14.65596 | 14.64523 | 14.62994 | 14.66815 | 14.62313 | |
| | 33 | 13.85822 | 13.9098 | 13.92053 | 14.25307 | 13.9499 | 14.26669 | |
| | 34 | 14.21573 | 14.26516 | 14.27268 | 14.16287 | 14.31171 | 14.26454 | |
| | Min | 13.8582 | 13.9098 | 13.9205 | 14.1629 | 13.9499 | 14.2645 | |
| | Max | 14.5786 | 14.6560 | 14.6452 | 14.6299 | 14.6682 | 14.6231 | |
| | Average | 14.2917 | 14.3535 | 14.3578 | 14.4080 | 14.3887 | 14.4312 | |

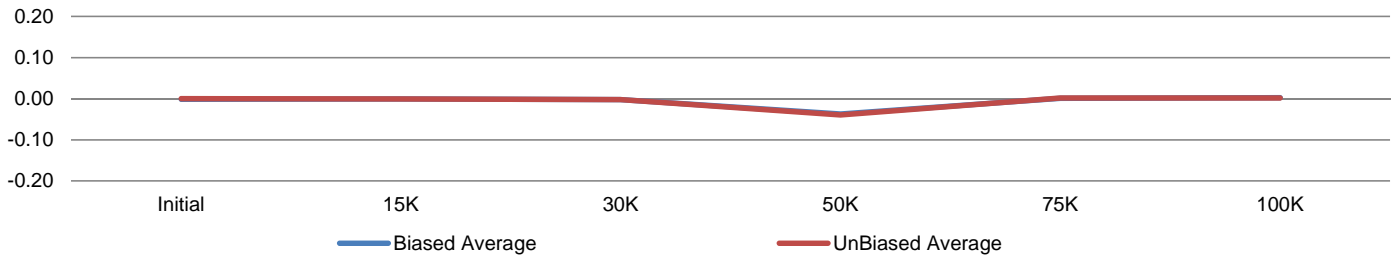


| T# 6 | | 3V IIH ENBL @ VIH max | | | | | | uA |
|----------|---------|-----------------------|----------|----------|----------|----------|----------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 14.75048 | 14.73765 | 14.72047 | 14.71915 | 14.73697 | 14.74132 | <20 |
| | 40 | 15.37639 | 15.37216 | 15.34425 | 15.34728 | 15.3951 | 15.41126 | |
| Biased | 16 | 15.84126 | 15.91648 | 15.9079 | 15.89273 | 15.92333 | 15.9427 | |
| | 17 | 14.19329 | 14.26633 | 14.2556 | 14.24028 | 14.26672 | 14.3151 | |
| | 35 | 15.4451 | 15.5128 | 15.515 | 14.84156 | 15.53789 | 15.60773 | |
| | 36 | 14.78591 | 14.84823 | 14.86112 | 15.17656 | 14.88942 | 14.90451 | |
| | Min | 14.1933 | 14.2663 | 14.2556 | 14.2403 | 14.2667 | 14.3151 | |
| | Max | 15.8413 | 15.9165 | 15.9079 | 15.8927 | 15.9233 | 15.9427 | |
| | Average | 15.0664 | 15.1360 | 15.1349 | 15.0378 | 15.1543 | 15.1925 | |
| UnBiased | 14 | 15.87991 | 15.95943 | 15.96587 | 15.96145 | 16.00492 | 16.02322 | |
| | 15 | 15.94862 | 16.03243 | 16.02921 | 16.01406 | 16.05538 | 16.0769 | |
| | 33 | 15.1606 | 15.21004 | 15.23044 | 15.60605 | 15.25875 | 15.68396 | |
| | 34 | 15.54602 | 15.60513 | 15.61909 | 15.49438 | 15.66029 | 15.68181 | |
| | Min | 15.1606 | 15.2100 | 15.2304 | 15.4944 | 15.2588 | 15.6818 | |
| | Max | 15.9486 | 16.0324 | 16.0292 | 16.0141 | 16.0554 | 16.0769 | |
| | Average | 15.6338 | 15.7018 | 15.7112 | 15.7690 | 15.7448 | 15.8665 | |

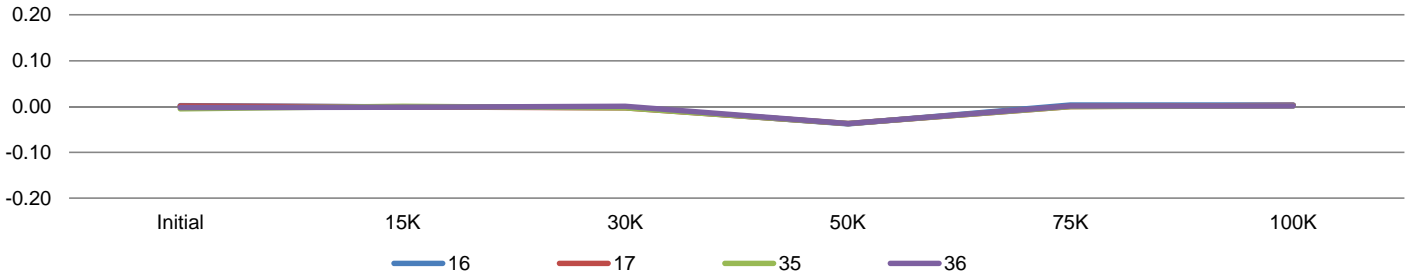


| T# 7 | 3V IIL MODE @ VIL min | | | | | | | uA |
|----------|-----------------------|----------|----------|----------|----------|----------|----------|----|
| SN | Initial | 15K | 30K | 50K | 75K | 100K | Limit | |
| Control | 18 | 0.00008 | -0.00060 | 0.00152 | -0.03800 | 0.00105 | 0.00050 | <2 |
| | 40 | -0.00416 | -0.00060 | -0.00166 | -0.03907 | -0.00107 | -0.00056 | |
| Biased | 16 | 0.00220 | -0.00060 | -0.00166 | -0.03800 | 0.00317 | 0.00368 | |
| | 17 | 0.00114 | -0.00060 | -0.00272 | -0.03694 | -0.00001 | 0.00262 | |
| | 35 | -0.00522 | 0.00046 | -0.00272 | -0.03694 | -0.00001 | 0.00156 | |
| | 36 | -0.00204 | -0.00166 | 0.00046 | -0.03694 | 0.00105 | 0.00156 | |
| | Min | -0.00522 | -0.00166 | -0.00272 | -0.03800 | -0.00001 | 0.00156 | |
| | Max | 0.00220 | 0.00046 | 0.00046 | -0.03694 | 0.00317 | 0.00368 | |
| | Average | -0.00098 | -0.00060 | -0.00166 | -0.03721 | 0.00105 | 0.00236 | |
| UnBiased | 14 | -0.00098 | 0.00046 | -0.00379 | -0.03800 | 0.00211 | -0.00268 | |
| | 15 | -0.00098 | -0.00272 | -0.00379 | -0.03907 | 0.00105 | 0.00368 | |
| | 33 | 0.00326 | 0.00152 | -0.00060 | -0.04119 | 0.00317 | 0.00262 | |
| | 34 | 0.00008 | -0.00060 | 0.00046 | -0.03907 | 0.00105 | 0.00262 | |
| | Min | -0.00098 | -0.00272 | -0.00379 | -0.04119 | 0.00105 | -0.00268 | |
| | Max | 0.00326 | 0.00152 | 0.00046 | -0.03800 | 0.00317 | 0.00368 | |
| | Average | 0.00035 | -0.00034 | -0.00193 | -0.03933 | 0.00185 | 0.00156 | |

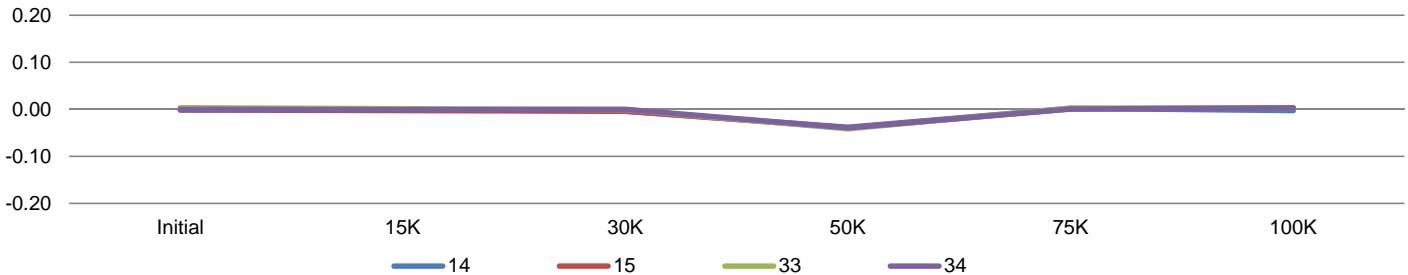
Mode Input Current Low Vs=3V @ Vil=min - Average



Mode Input Current Low Vs=3V @ Vil=min - Biased

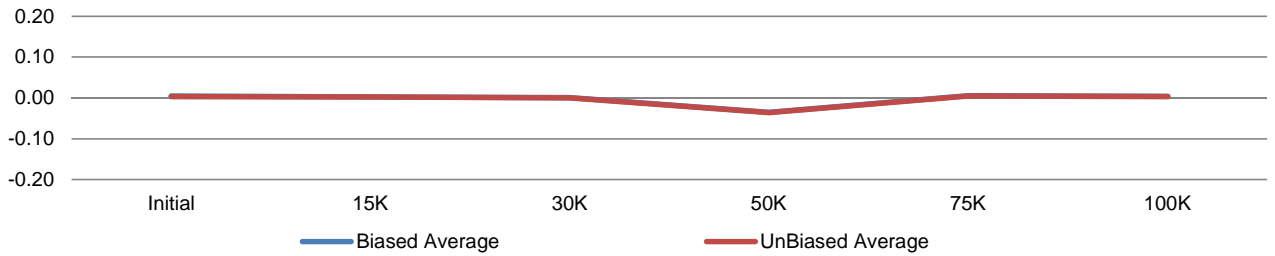


Mode Input Current Low Vs=3V @ Vil=min - UnBiased

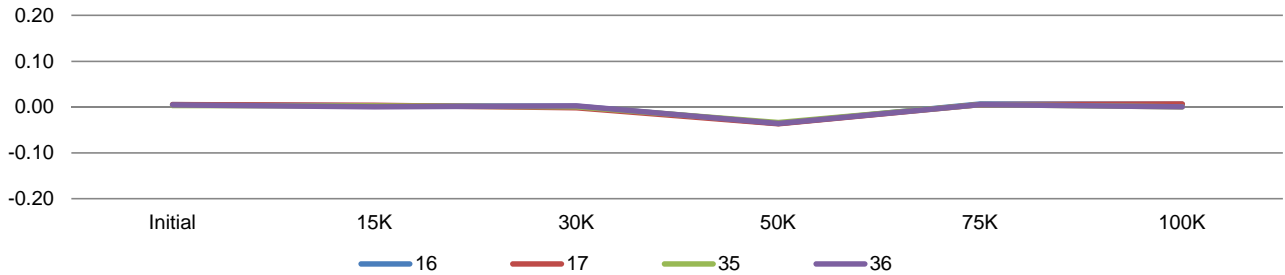


| T# 8 | | 3V IIL MODE @ Vil max | | | | | | uA |
|----------|---------|-----------------------|---------|----------|----------|---------|---------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 0.00351 | 0.00594 | -0.00043 | -0.03031 | 0.00441 | 0.00386 | <2 |
| | 40 | 0.00351 | 0.00594 | 0.00169 | -0.03455 | 0.00229 | 0.00599 | |
| Biased | 16 | 0.00563 | 0.00276 | 0.00169 | -0.03561 | 0.00654 | 0.00599 | |
| | 17 | 0.00563 | 0.00382 | -0.00149 | -0.03667 | 0.00547 | 0.00705 | |
| | 35 | 0.00351 | 0.00276 | 0.00063 | -0.03349 | 0.00547 | 0.00068 | |
| | 36 | 0.00457 | 0.00063 | 0.00276 | -0.03561 | 0.00547 | 0.00068 | |
| | Min | 0.00351 | 0.00063 | -0.00149 | -0.03667 | 0.00547 | 0.00068 | |
| | Max | 0.00563 | 0.00382 | 0.00276 | -0.03349 | 0.00654 | 0.00705 | |
| | Average | 0.00484 | 0.00249 | 0.00090 | -0.03535 | 0.00574 | 0.00360 | |
| UnBiased | 14 | 0.00351 | 0.00063 | 0.00063 | -0.03561 | 0.00866 | 0.00068 | |
| | 15 | 0.00139 | 0.00169 | 0.00169 | -0.03985 | 0.00335 | 0.00492 | |
| | 33 | 0.00139 | 0.00276 | -0.00043 | -0.03137 | 0.00335 | 0.00386 | |
| | 34 | 0.00775 | 0.00488 | -0.00149 | -0.03773 | 0.00229 | 0.00386 | |
| | Min | 0.00139 | 0.00063 | -0.00149 | -0.03985 | 0.00229 | 0.00068 | |
| | Max | 0.00775 | 0.00488 | 0.00169 | -0.03137 | 0.00866 | 0.00492 | |
| | Average | 0.00351 | 0.00249 | 0.00010 | -0.03614 | 0.00441 | 0.00333 | |

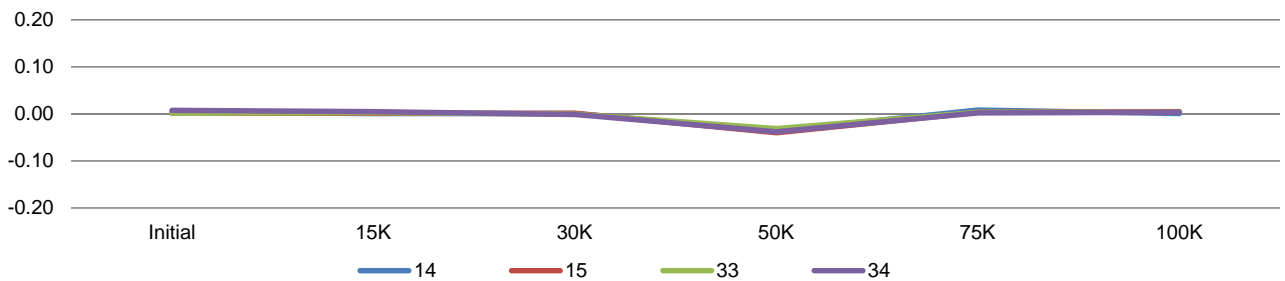
Mode Input Current Low Vs=3V @ Vil=max - Average



Mode Input Current Low Vs=3V @ Vil=max - Biased

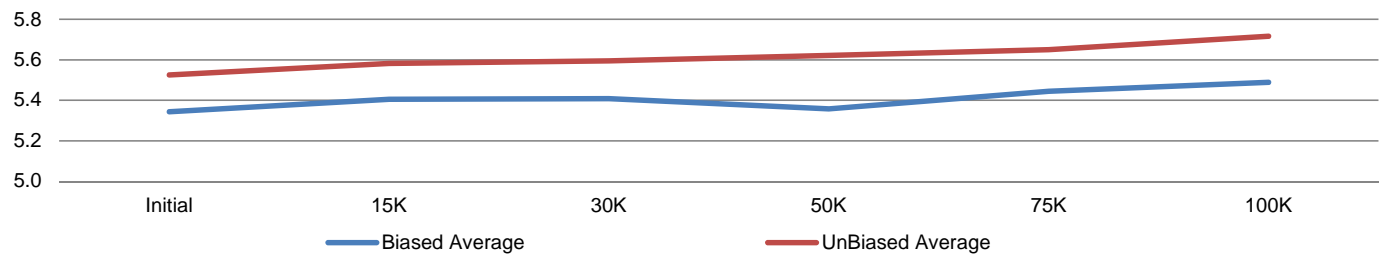


Mode Input Current Low Vs=3V @ Vil=max - UnBiased

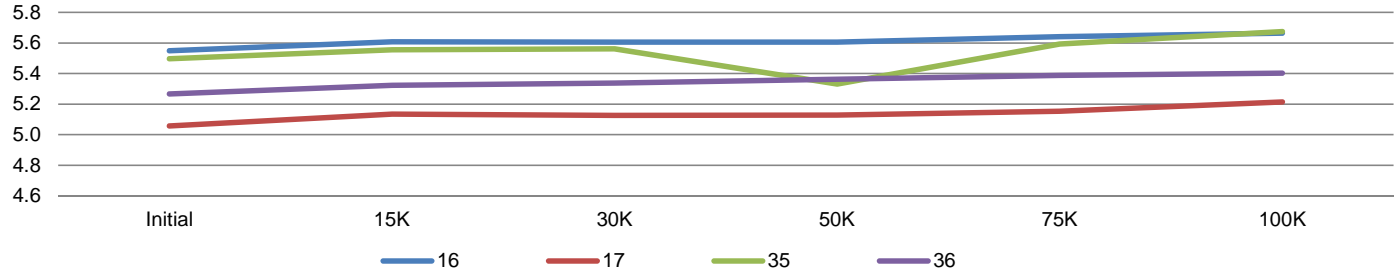


| T# 9 | | 3V I IH MODE @ VIH min | | | | | | uA |
|----------|---------|------------------------|---------|---------|---------|---------|---------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 5.27218 | 5.2542 | 5.23193 | 5.24765 | 5.25689 | 5.25853 | <10 |
| | 40 | 5.48534 | 5.48539 | 5.44721 | 5.46508 | 5.51247 | 5.53002 | |
| Biased | 16 | 5.55002 | 5.60735 | 5.60629 | 5.60614 | 5.64079 | 5.6647 | |
| | 17 | 5.0569 | 5.13436 | 5.12588 | 5.1278 | 5.15402 | 5.21398 | |
| | 35 | 5.49806 | 5.55644 | 5.563 | 5.3325 | 5.59307 | 5.67531 | |
| | 36 | 5.26794 | 5.32419 | 5.33904 | 5.36326 | 5.38945 | 5.40382 | |
| | Min | 5.0569 | 5.1344 | 5.1259 | 5.1278 | 5.1540 | 5.2140 | |
| | Max | 5.5500 | 5.6074 | 5.6063 | 5.6061 | 5.6408 | 5.6753 | |
| | Average | 5.3432 | 5.4056 | 5.4085 | 5.3574 | 5.4443 | 5.4895 | |
| UnBiased | 14 | 5.56593 | 5.62113 | 5.6381 | 5.65599 | 5.7023 | 5.71879 | |
| | 15 | 5.58608 | 5.64977 | 5.64765 | 5.65493 | 5.69594 | 5.73151 | |
| | 33 | 5.39944 | 5.44933 | 5.47478 | 5.62736 | 5.52095 | 5.71242 | |
| | 34 | 5.55321 | 5.61053 | 5.62007 | 5.54993 | 5.68215 | 5.70712 | |
| | Min | 5.3994 | 5.4493 | 5.4748 | 5.5499 | 5.5210 | 5.7071 | |
| | Max | 5.5861 | 5.6498 | 5.6477 | 5.6560 | 5.7023 | 5.7315 | |
| | Average | 5.5262 | 5.5827 | 5.5952 | 5.6221 | 5.6503 | 5.7175 | |

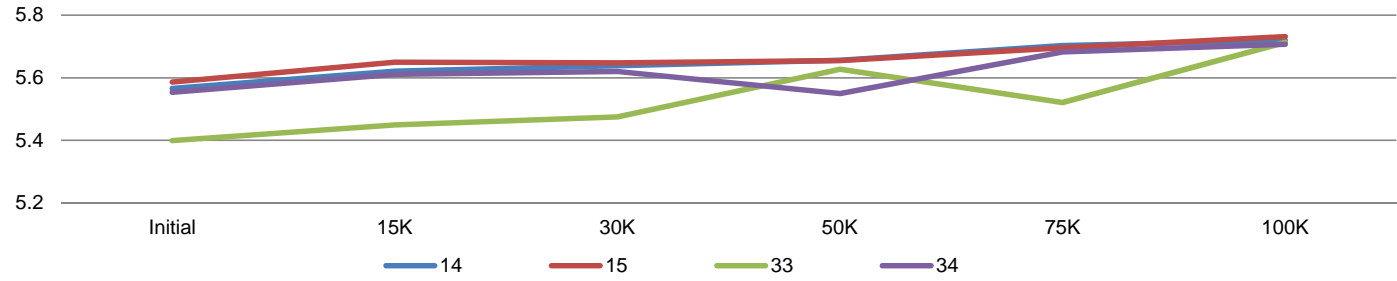
Mode Input Current High Vs=3V @ Vih=min - Average



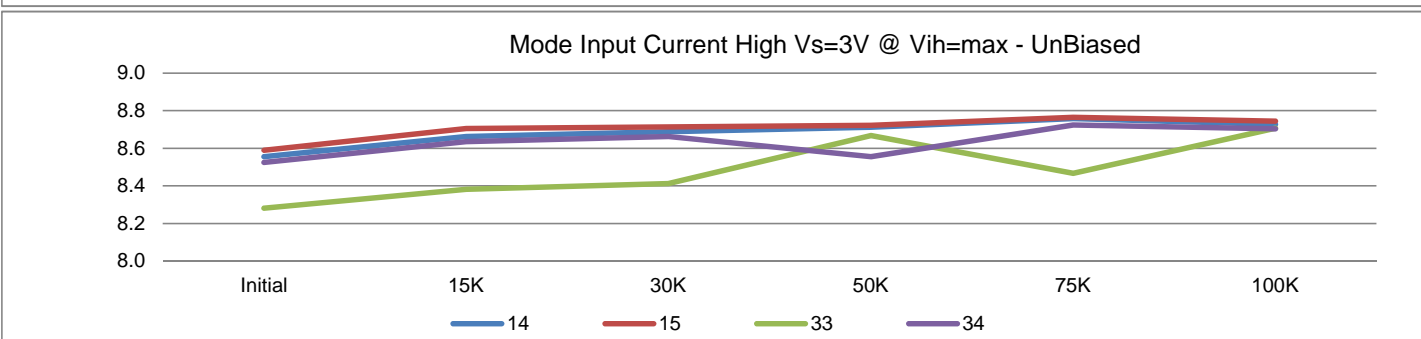
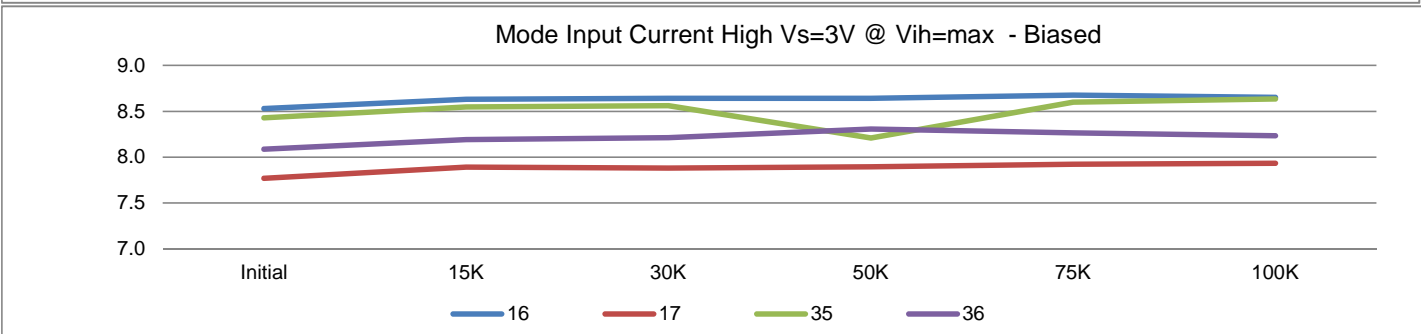
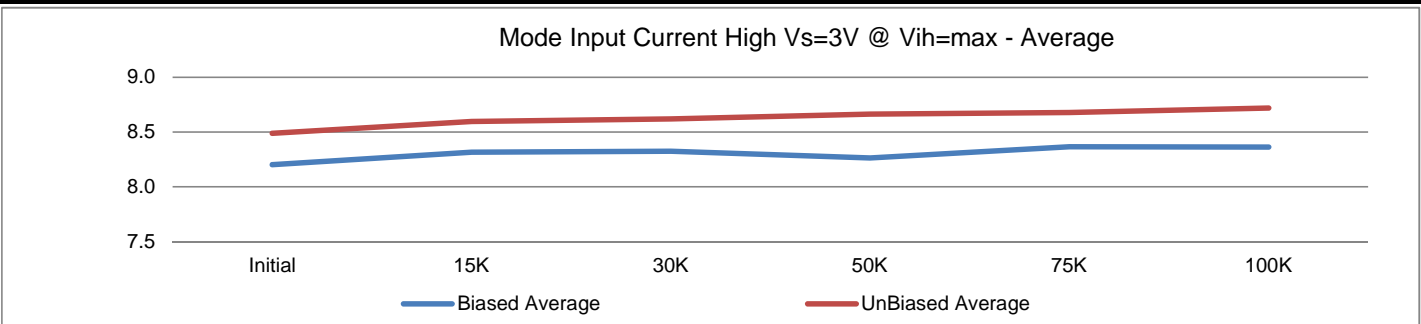
Mode Input Current High Vs=3V @ Vih=min - Biased



Mode Input Current High Vs=3V @ Vih=min - UnBiased

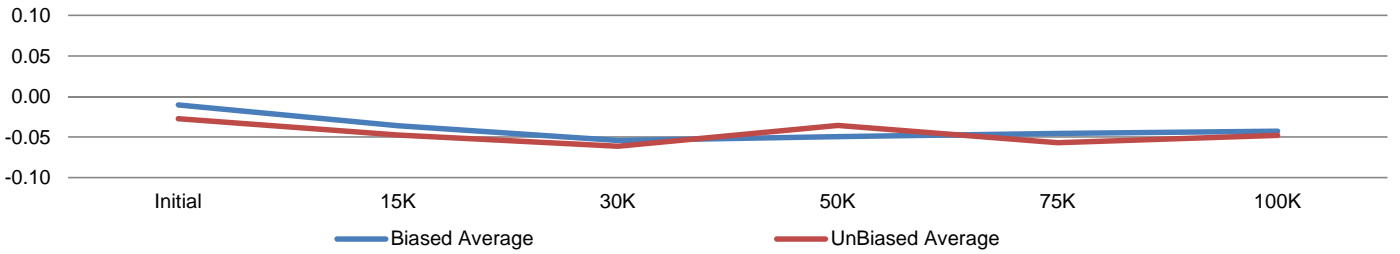


| T# 10 | | 3V IiH MODE @ Vih max | | | | | | uA |
|----------|---------|-----------------------|---------|---------|---------|---------|---------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 8.07859 | 8.10828 | 8.09238 | 8.10538 | 8.11838 | 8.06596 | <15 |
| | 40 | 8.40946 | 8.46355 | 8.42325 | 8.45433 | 8.50121 | 8.46153 | |
| Biased | 16 | 8.53036 | 8.63323 | 8.64172 | 8.64100 | 8.67726 | 8.65243 | |
| | 17 | 7.76787 | 7.89088 | 7.88240 | 7.89432 | 7.92219 | 7.93340 | |
| | 35 | 8.42749 | 8.54839 | 8.56112 | 8.21038 | 8.60090 | 8.63440 | |
| | 36 | 8.08814 | 8.19312 | 8.21221 | 8.30584 | 8.26579 | 8.23246 | |
| | Min | 7.76787 | 7.89088 | 7.88240 | 7.89432 | 7.92219 | 7.93340 | |
| | Max | 8.53036 | 8.63323 | 8.64172 | 8.64100 | 8.67726 | 8.65243 | |
| | Average | 8.20347 | 8.31641 | 8.32436 | 8.26289 | 8.36654 | 8.36317 | |
| UnBiased | 14 | 8.55581 | 8.66187 | 8.68838 | 8.71100 | 8.75785 | 8.72666 | |
| | 15 | 8.58974 | 8.70429 | 8.71277 | 8.72267 | 8.76422 | 8.74363 | |
| | 33 | 8.28114 | 8.38189 | 8.41265 | 8.66751 | 8.46728 | 8.70651 | |
| | 34 | 8.52399 | 8.63535 | 8.66187 | 8.55509 | 8.72286 | 8.70333 | |
| | Min | 8.28114 | 8.38189 | 8.41265 | 8.55509 | 8.46728 | 8.70333 | |
| | Max | 8.58974 | 8.70429 | 8.71277 | 8.72267 | 8.76422 | 8.74363 | |
| | Average | 8.48767 | 8.59585 | 8.61892 | 8.66407 | 8.67805 | 8.72003 | |

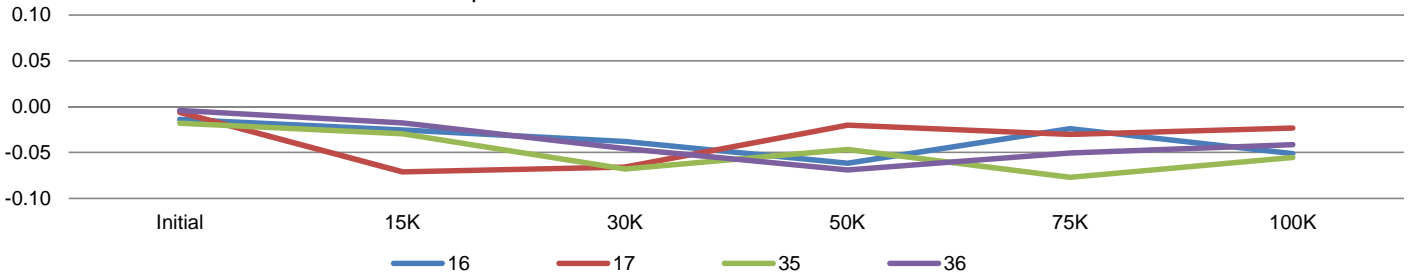


| T# 11 | | 3V IGAIN @ 0V | | | | | | uA |
|----------|---------|---------------|----------|----------|----------|----------|----------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | -0.06602 | -0.01889 | -0.04021 | -0.04253 | -0.03136 | -0.05856 | <2 |
| | 40 | -0.00204 | -0.04767 | -0.06793 | -0.02334 | -0.06974 | -0.05856 | |
| Biased | 16 | -0.01377 | -0.02528 | -0.03808 | -0.06173 | -0.02389 | -0.05110 | |
| | 17 | -0.00631 | -0.07113 | -0.06580 | -0.02014 | -0.03029 | -0.02338 | |
| | 35 | -0.01804 | -0.02955 | -0.06793 | -0.04680 | -0.07721 | -0.05537 | |
| | 36 | -0.00418 | -0.01782 | -0.04554 | -0.06919 | -0.05055 | -0.04150 | |
| | Min | -0.01804 | -0.07113 | -0.06793 | -0.06919 | -0.07721 | -0.05537 | |
| | Max | -0.00418 | -0.01782 | -0.03808 | -0.02014 | -0.02389 | -0.02338 | |
| | Average | -0.01058 | -0.03595 | -0.05434 | -0.04947 | -0.04549 | -0.04284 | |
| UnBiased | 14 | -0.02124 | -0.04448 | -0.04448 | -0.04787 | -0.06015 | -0.04150 | |
| | 15 | 0.00115 | -0.01036 | -0.05620 | -0.02654 | -0.06441 | -0.04044 | |
| | 33 | -0.08414 | -0.06367 | -0.07220 | -0.03507 | -0.06654 | -0.06070 | |
| | 34 | -0.00524 | -0.07220 | -0.07326 | -0.03294 | -0.03669 | -0.04897 | |
| | Min | -0.08414 | -0.07220 | -0.07326 | -0.04787 | -0.06654 | -0.06070 | |
| | Max | 0.00115 | -0.01036 | -0.04448 | -0.02654 | -0.03669 | -0.04044 | |
| | Average | -0.02737 | -0.04768 | -0.06154 | -0.03561 | -0.05695 | -0.04790 | |

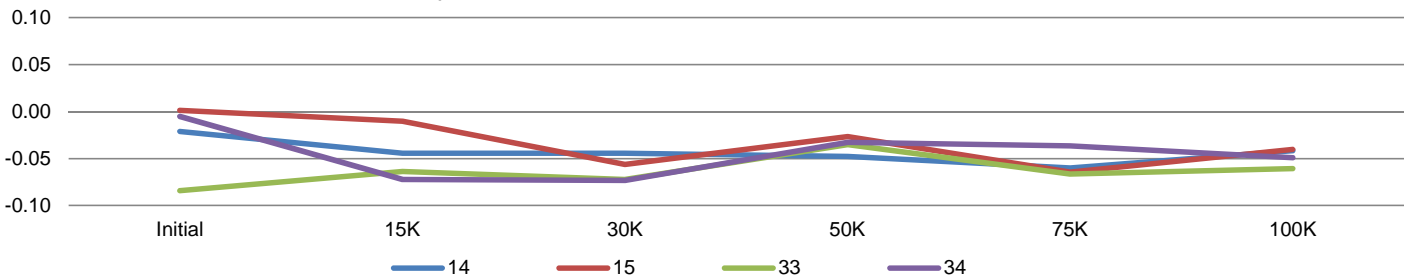
Gain Input Low Current Vs=5V - Average



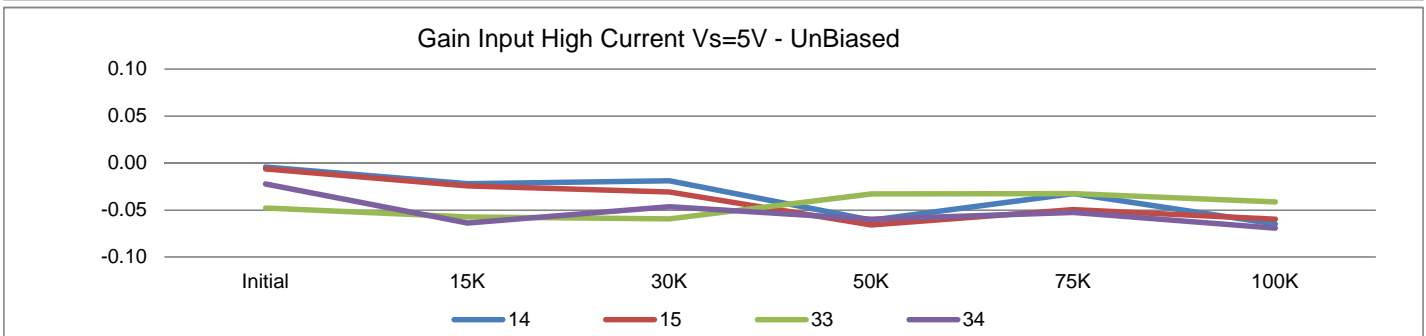
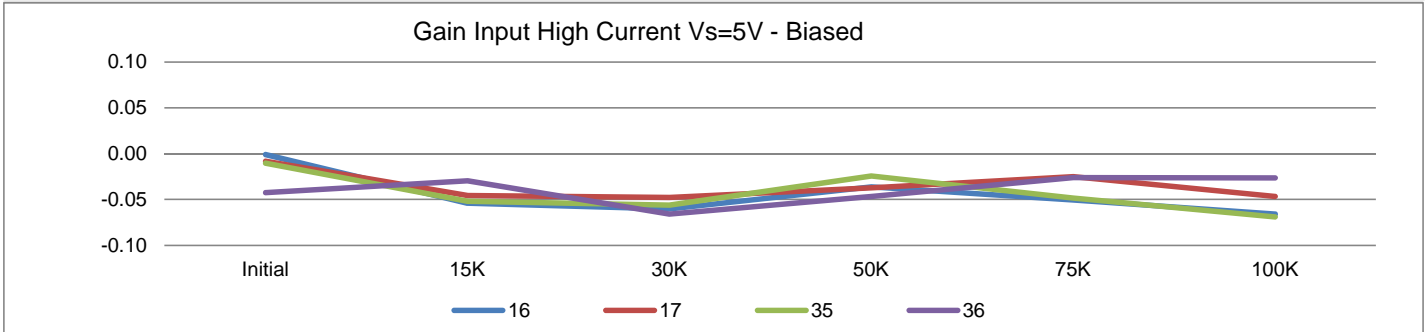
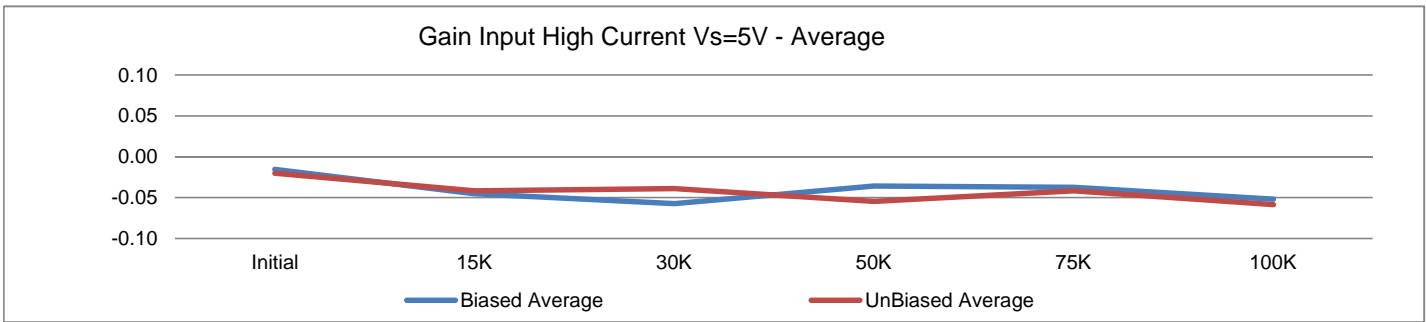
Gain Input Low Current Vs=5V - Biased



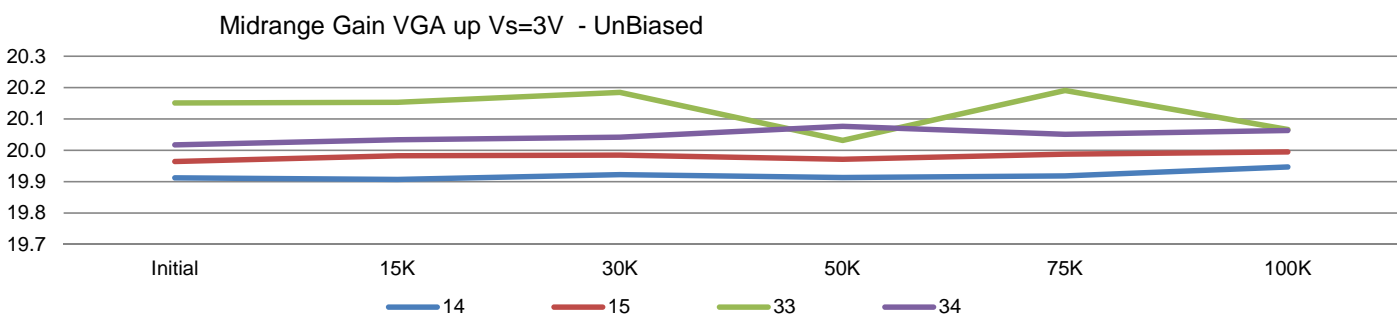
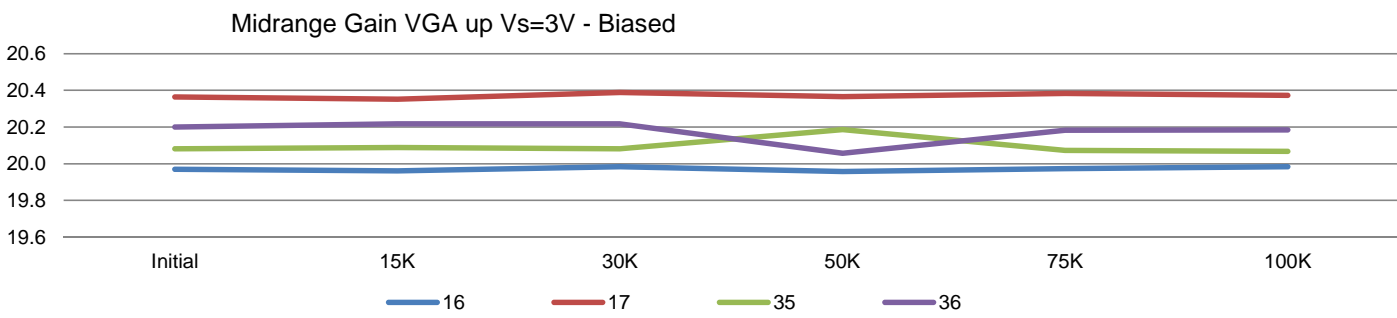
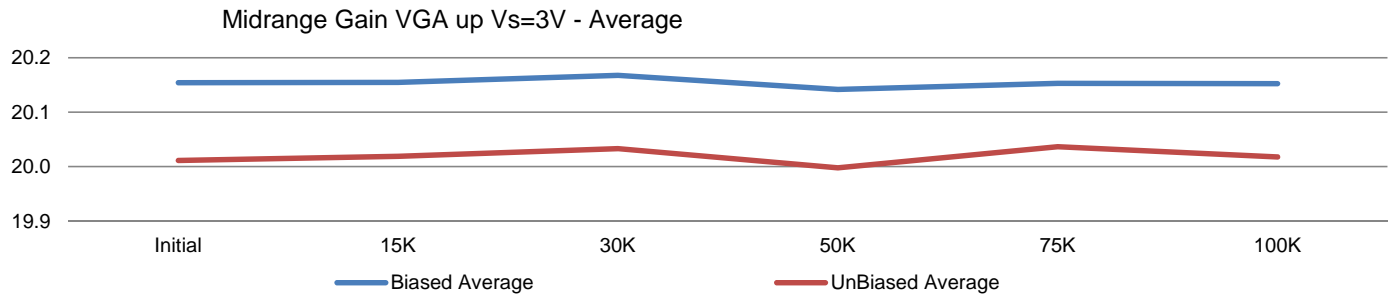
Gain Input Low Current Vs=5V - UnBiased



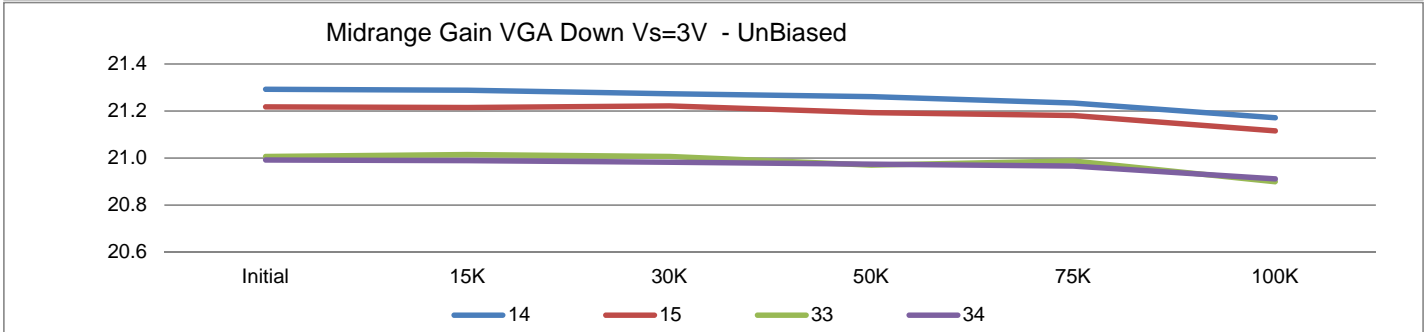
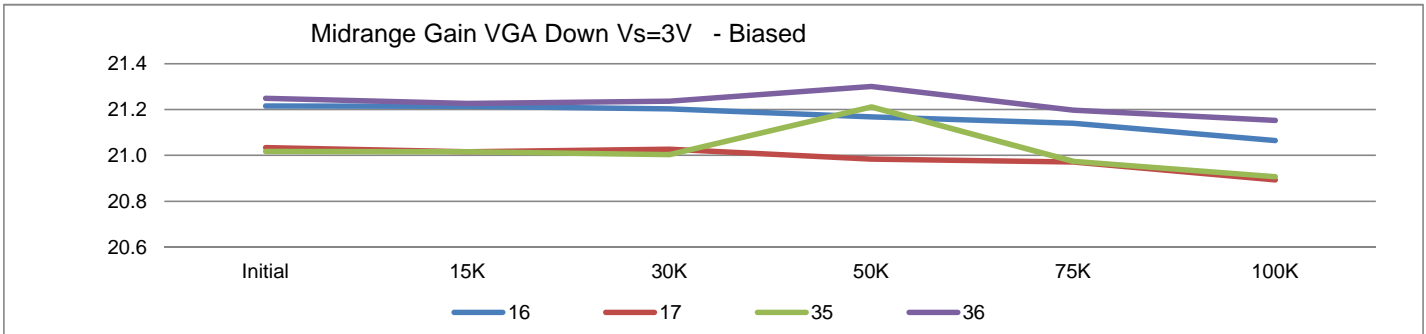
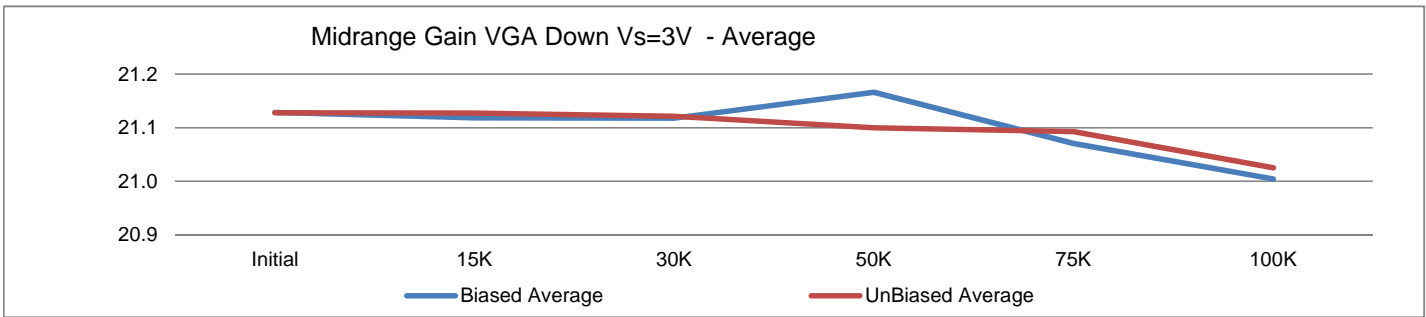
| T# 12 | | 3V IGAIN @ 1V | | | | | | uA |
|----------|---------|---------------|----------|----------|----------|----------|----------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | -0.01375 | -0.06364 | -0.06258 | -0.06807 | -0.05372 | -0.02654 | <2 |
| | 40 | -0.01908 | -0.02099 | -0.05831 | -0.03395 | -0.05905 | -0.03613 | |
| Biased | 16 | -0.00095722 | -0.05405 | -0.06044 | -0.03608 | -0.05052 | -0.06599 | |
| | 17 | -0.00842 | -0.04552 | -0.04765 | -0.03715 | -0.02493 | -0.0468 | |
| | 35 | -0.01055 | -0.05191 | -0.056 | -0.02435 | -0.04839 | -0.06919 | |
| | 36 | -0.04254 | -0.02952 | -0.06577 | -0.04675 | -0.026 | -0.02654 | |
| | Min | -0.0425 | -0.0541 | -0.0658 | -0.0468 | -0.0505 | -0.0692 | |
| | Max | -0.0010 | -0.0295 | -0.0477 | -0.0244 | -0.0249 | -0.0265 | |
| | Average | -0.0156 | -0.0453 | -0.0575 | -0.0361 | -0.0375 | -0.0521 | |
| UnBiased | 14 | -0.00416 | -0.02206 | -0.01886 | -0.06061 | -0.0324 | -0.06492 | |
| | 15 | -0.00629 | -0.02419 | -0.03059 | -0.06594 | -0.04946 | -0.05959 | |
| | 33 | -0.04787 | -0.05724 | -0.05938 | -0.03288 | -0.0324 | -0.04146 | |
| | 34 | -0.02228 | -0.06364 | -0.04658 | -0.05954 | -0.05265 | -0.06919 | |
| | Min | -0.0479 | -0.0636 | -0.0594 | -0.0659 | -0.0527 | -0.0692 | |
| | Max | -0.0042 | -0.0221 | -0.0189 | -0.0329 | -0.0324 | -0.0415 | |
| | Average | -0.0202 | -0.0418 | -0.0389 | -0.0547 | -0.0417 | -0.0588 | |



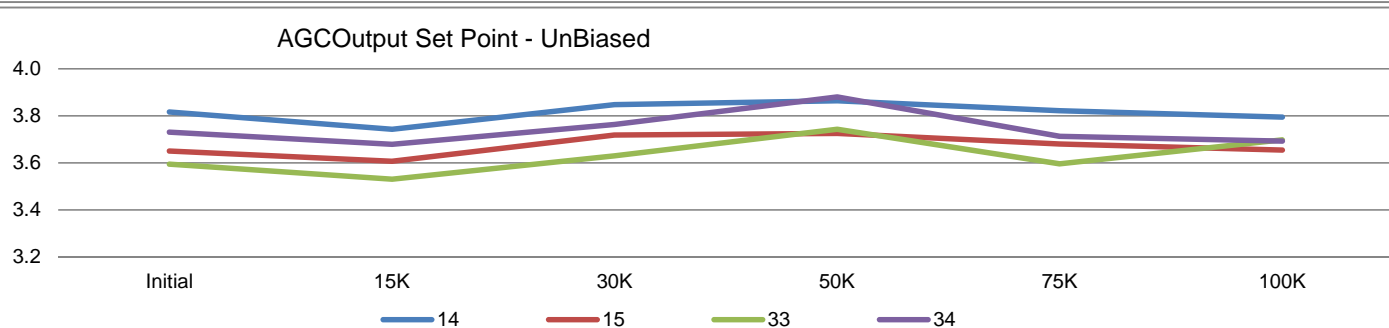
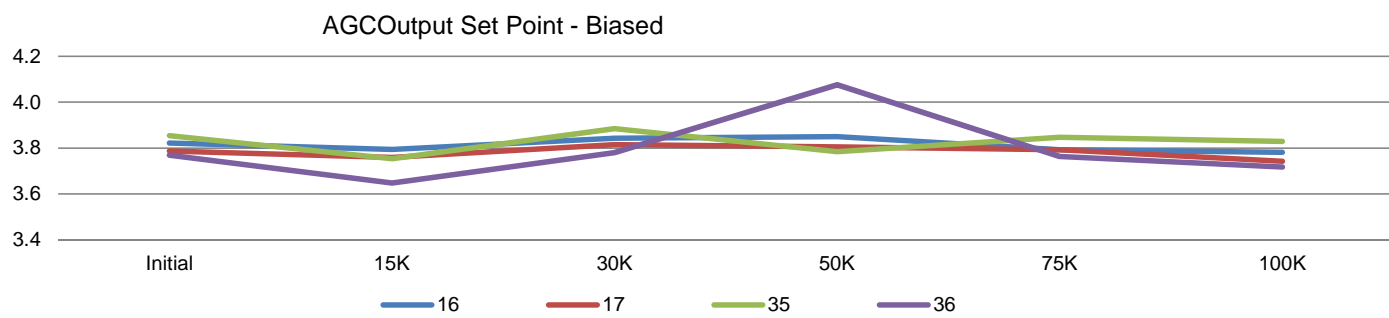
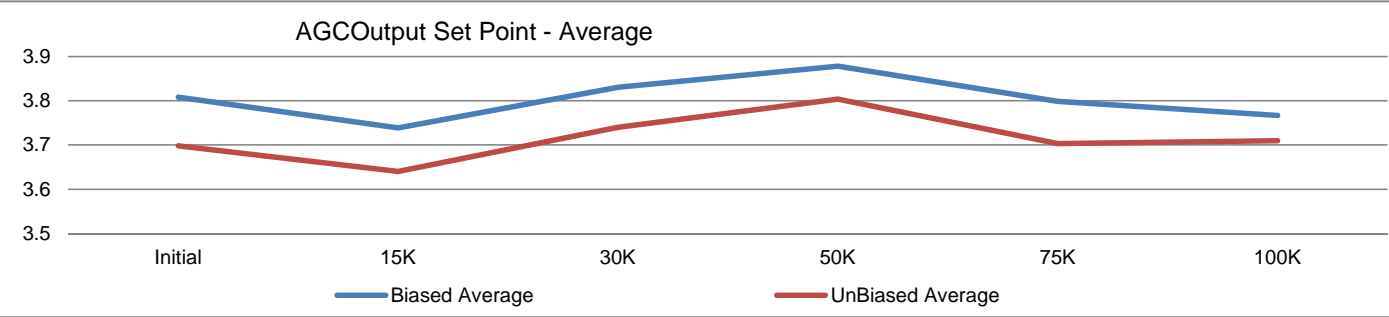
| T# 13 | | 3V VGA Up midrange GAIN V | | | | | | dB |
|----------|---------|---------------------------|----------|----------|----------|----------|----------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 20.38829 | 20.38053 | 20.39920 | 20.35626 | 20.36483 | 20.39262 | >18.5 |
| | 40 | 19.99245 | 19.98151 | 20.01669 | 19.97519 | 19.96665 | 19.97939 | <22.5 |
| Biased | 16 | 19.96974 | 19.96112 | 19.98348 | 19.95731 | 19.97268 | 19.98418 | |
| | 17 | 20.36460 | 20.35268 | 20.38878 | 20.36566 | 20.38381 | 20.37255 | |
| | 35 | 20.08167 | 20.08824 | 20.08123 | 20.18685 | 20.07251 | 20.06810 | |
| | 36 | 20.20007 | 20.21763 | 20.21673 | 20.05658 | 20.18218 | 20.18401 | |
| | Min | 19.96974 | 19.96112 | 19.98348 | 19.95731 | 19.97268 | 19.98418 | |
| | Max | 20.36460 | 20.35268 | 20.38878 | 20.36566 | 20.38381 | 20.37255 | |
| | Average | 20.15402 | 20.15492 | 20.16756 | 20.14160 | 20.15280 | 20.15221 | |
| UnBiased | 14 | 19.91235 | 19.90714 | 19.92171 | 19.91324 | 19.91839 | 19.94694 | |
| | 15 | 19.96392 | 19.98229 | 19.98453 | 19.97105 | 19.98707 | 19.99500 | |
| | 33 | 20.15058 | 20.15253 | 20.18421 | 20.03141 | 20.19049 | 20.06567 | |
| | 34 | 20.01723 | 20.03329 | 20.04158 | 20.07598 | 20.05112 | 20.06264 | |
| | Min | 19.91235 | 19.90714 | 19.92171 | 19.91324 | 19.91839 | 19.94694 | |
| | Max | 20.15058 | 20.15253 | 20.18421 | 20.07598 | 20.19049 | 20.06567 | |
| | Average | 20.01102 | 20.01881 | 20.03301 | 19.99792 | 20.03677 | 20.01756 | |



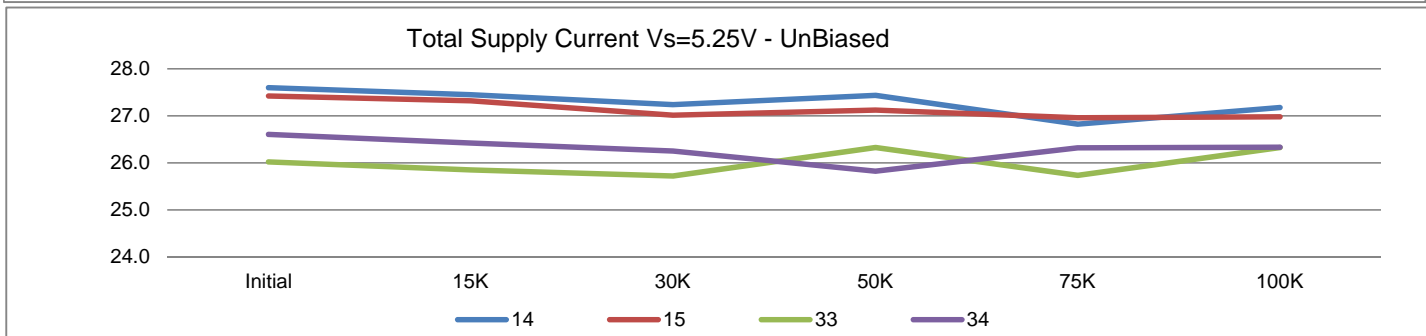
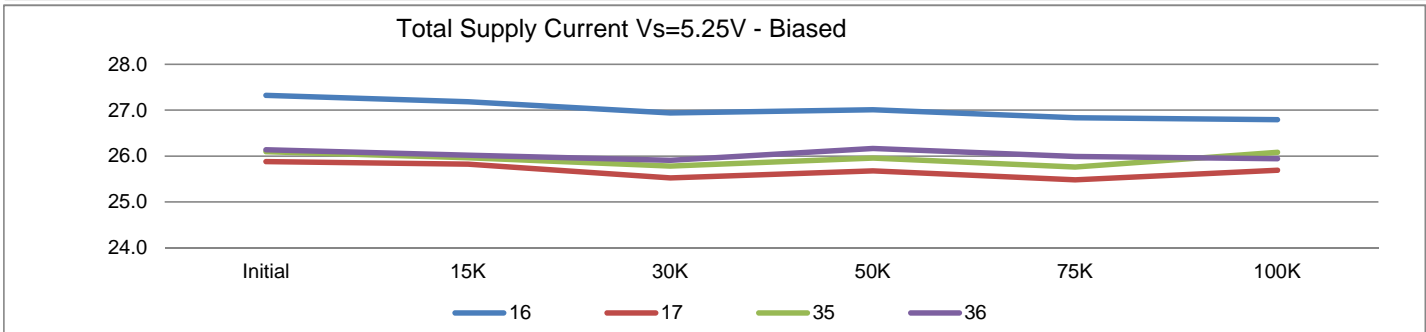
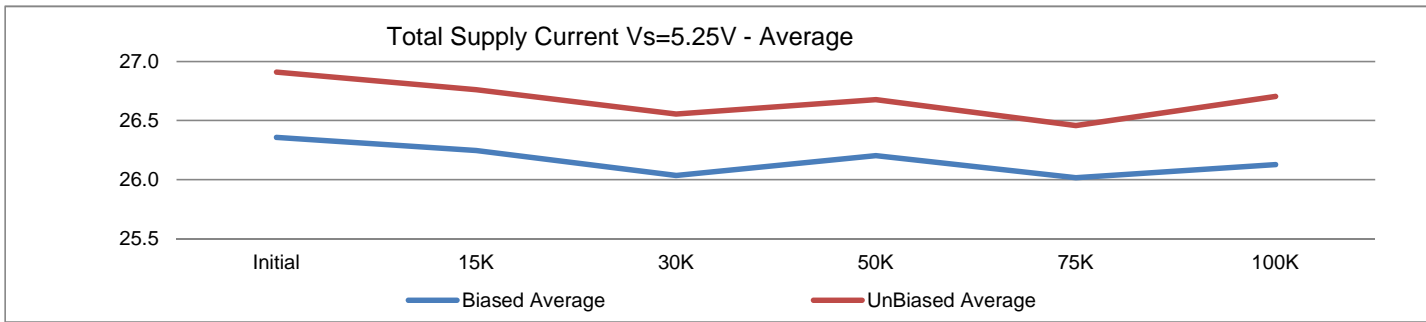
| T# 14 | | 3V VGA Down midrange Gain | | | | | | dB |
|----------|---------|---------------------------|----------|----------|----------|----------|----------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 21.03865 | 21.05688 | 21.08062 | 21.05046 | 21.06962 | 20.99763 | >18.5 |
| | 40 | 21.12029 | 21.13646 | 21.15682 | 21.13528 | 21.14354 | 21.09839 | <22.5 |
| Biased | 16 | 21.21555 | 21.21377 | 21.20348 | 21.16850 | 21.13964 | 21.06470 | |
| | 17 | 21.03329 | 21.01635 | 21.02723 | 20.98435 | 20.97088 | 20.89292 | |
| | 35 | 21.01674 | 21.01586 | 21.00259 | 21.21132 | 20.97417 | 20.90726 | |
| | 36 | 21.24926 | 21.22674 | 21.23639 | 21.30024 | 21.19743 | 21.15211 | |
| | Min | 21.01674 | 21.01586 | 21.00259 | 20.98435 | 20.97088 | 20.89292 | |
| | Max | 21.24926 | 21.22674 | 21.23639 | 21.30024 | 21.19743 | 21.15211 | |
| | Average | 21.12871 | 21.11818 | 21.11742 | 21.16610 | 21.07053 | 21.00425 | |
| UnBiased | 14 | 21.29335 | 21.28859 | 21.27352 | 21.26093 | 21.23394 | 21.17231 | |
| | 15 | 21.21862 | 21.21559 | 21.22241 | 21.19292 | 21.18151 | 21.11622 | |
| | 33 | 21.00698 | 21.01598 | 21.00668 | 20.97065 | 20.98874 | 20.89952 | |
| | 34 | 20.99289 | 20.98976 | 20.98207 | 20.97407 | 20.96607 | 20.91162 | |
| | Min | 20.99289 | 20.98976 | 20.98207 | 20.97065 | 20.96607 | 20.89952 | |
| | Max | 21.29335 | 21.28859 | 21.27352 | 21.26093 | 21.23394 | 21.17231 | |
| | Average | 21.12796 | 21.12748 | 21.12117 | 21.09964 | 21.09257 | 21.02492 | |



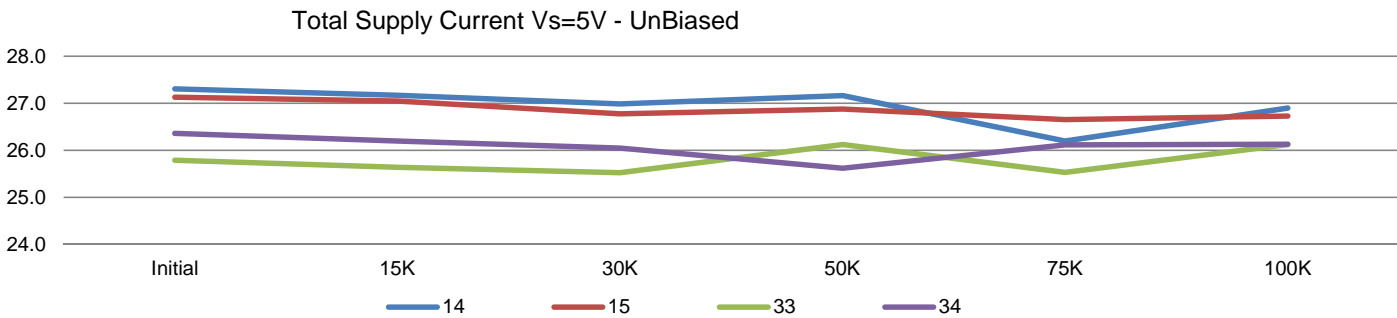
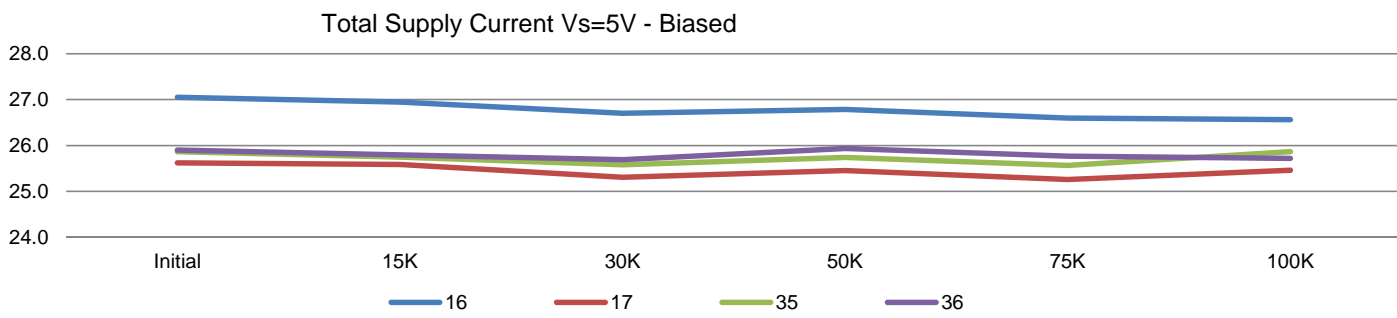
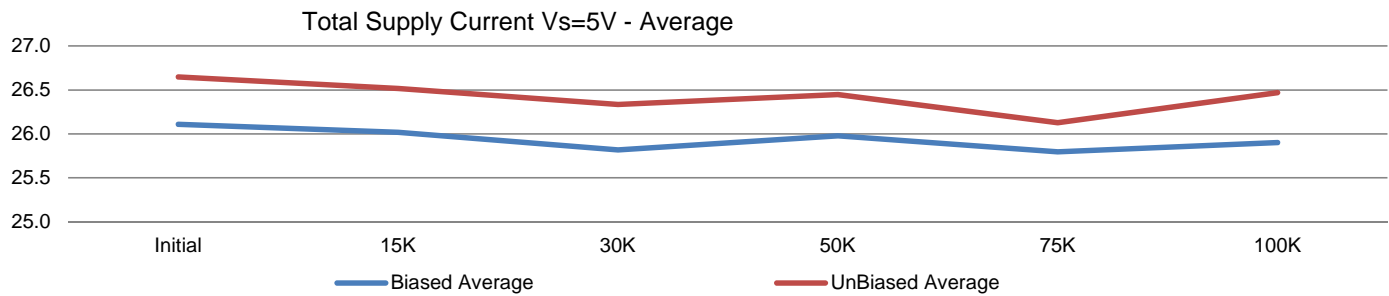
| T# 15 | | 3V AGC midrange VOUT Pwr | | | | | | dBm |
|----------|---------|--------------------------|---------|---------|---------|---------|---------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 3.85707 | 3.89 | 3.91116 | 3.91697 | 3.90509 | 3.8755 | >3 |
| | 40 | 4.13702 | 4.09966 | 4.16551 | 4.17149 | 4.16309 | 4.14011 | <6 |
| Biased | 16 | 3.82212 | 3.79421 | 3.84228 | 3.84937 | 3.79262 | 3.7807 | |
| | 17 | 3.78694 | 3.75921 | 3.81501 | 3.80449 | 3.7923 | 3.74225 | |
| | 35 | 3.85358 | 3.75345 | 3.885 | 3.78452 | 3.84655 | 3.82854 | |
| | 36 | 3.76793 | 3.64719 | 3.78036 | 4.07511 | 3.76243 | 3.71667 | |
| | Min | 3.7679 | 3.6472 | 3.7804 | 3.7845 | 3.7624 | 3.7167 | |
| | Max | 3.8536 | 3.7942 | 3.8847 | 4.0751 | 3.8466 | 3.8285 | |
| | Average | 3.8076 | 3.7385 | 3.8306 | 3.8784 | 3.7985 | 3.7670 | |
| UnBiased | 14 | 3.81625 | 3.7435 | 3.84806 | 3.86467 | 3.82223 | 3.79519 | |
| | 15 | 3.65077 | 3.60695 | 3.71884 | 3.72548 | 3.67999 | 3.65429 | |
| | 33 | 3.59458 | 3.53073 | 3.62981 | 3.74345 | 3.59635 | 3.69763 | |
| | 34 | 3.7303 | 3.67938 | 3.76389 | 3.88109 | 3.71342 | 3.69218 | |
| | Min | 3.5946 | 3.5307 | 3.6298 | 3.7255 | 3.5964 | 3.6543 | |
| | Max | 3.8163 | 3.7435 | 3.8481 | 3.8811 | 3.8222 | 3.7952 | |
| | Average | 3.6980 | 3.6401 | 3.7402 | 3.8037 | 3.7030 | 3.7098 | |



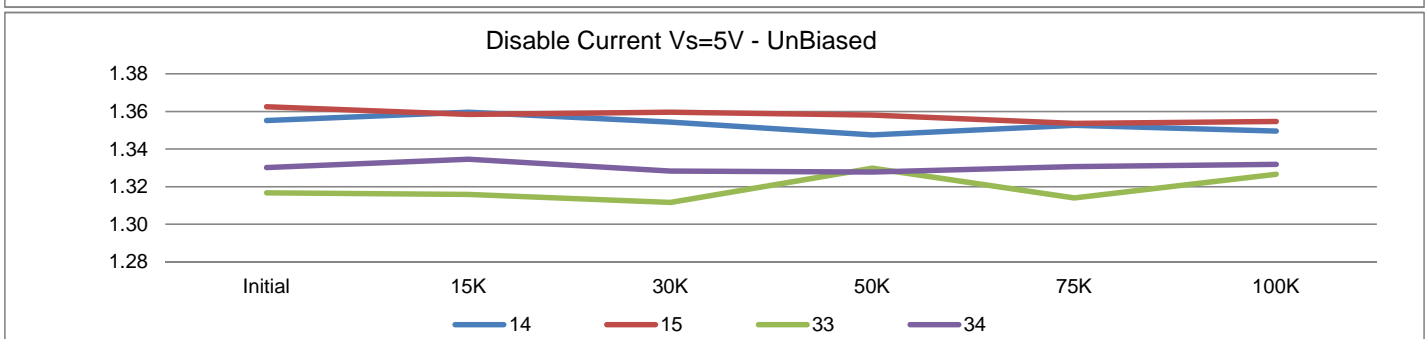
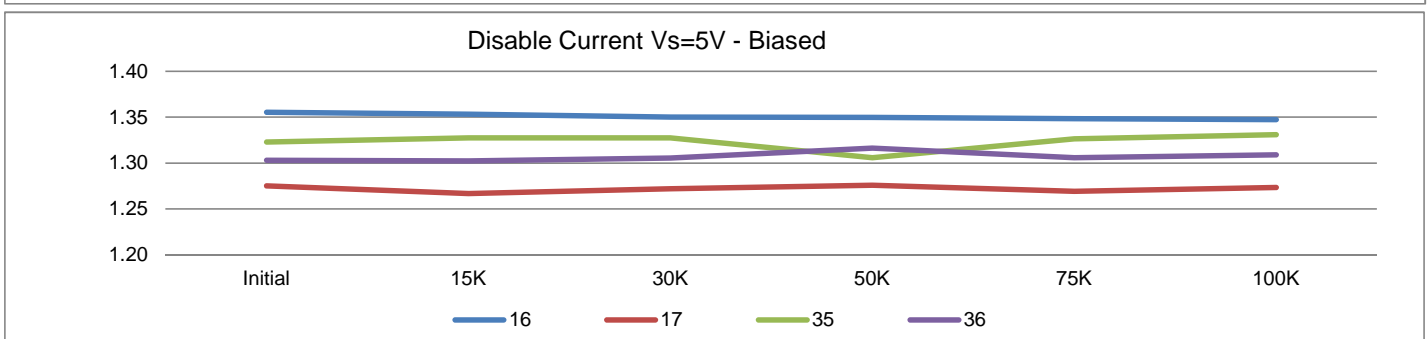
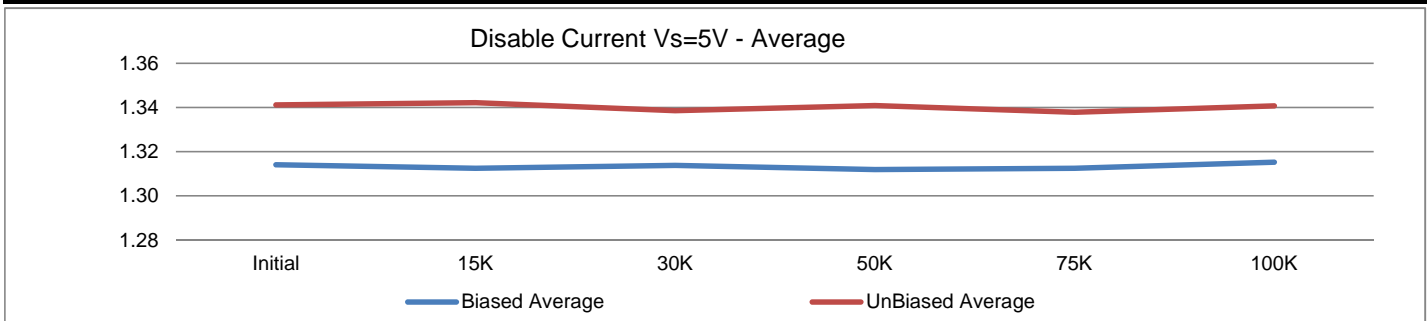
| T# 16 | | 5.25V Total Supply Current | | | | | | mA |
|----------|---------|----------------------------|----------|----------|----------|----------|----------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 26.13195 | 25.94683 | 25.82502 | 26.13165 | 25.9746 | 25.86619 | <30 |
| | 40 | 26.83467 | 26.78389 | 26.4955 | 26.9042 | 26.94394 | 26.93023 | |
| Biased | 16 | 27.32294 | 27.18264 | 26.9359 | 27.01039 | 26.83462 | 26.78967 | |
| | 17 | 25.87584 | 25.81982 | 25.52206 | 25.67666 | 25.479 | 25.69233 | |
| | 35 | 26.09655 | 25.96349 | 25.777 | 25.95569 | 25.7622 | 26.07962 | |
| | 36 | 26.13611 | 26.01867 | 25.90311 | 26.16601 | 25.98814 | 25.94115 | |
| | Min | 25.8758 | 25.8198 | 25.5221 | 25.6767 | 25.4790 | 25.6923 | |
| | Max | 27.3229 | 27.1826 | 26.9359 | 27.0104 | 26.8346 | 26.7897 | |
| | Average | 26.3579 | 26.2462 | 26.0346 | 26.2022 | 26.0160 | 26.1257 | |
| UnBiased | 14 | 27.59882 | 27.44813 | 27.23782 | 27.43311 | 26.82421 | 27.17801 | |
| | 15 | 27.42288 | 27.31903 | 27.01502 | 27.12284 | 26.95644 | 26.9802 | |
| | 33 | 26.01743 | 25.84897 | 25.71779 | 26.32739 | 25.73409 | 26.32637 | |
| | 34 | 26.60356 | 26.42158 | 26.2498 | 25.82555 | 26.31715 | 26.3347 | |
| | Min | 26.0174 | 25.8490 | 25.7178 | 25.8256 | 25.7341 | 26.3264 | |
| | Max | 27.5988 | 27.4481 | 27.2378 | 27.4331 | 26.9564 | 27.1780 | |
| | Average | 26.9107 | 26.7594 | 26.5551 | 26.6772 | 26.4580 | 26.7048 | |



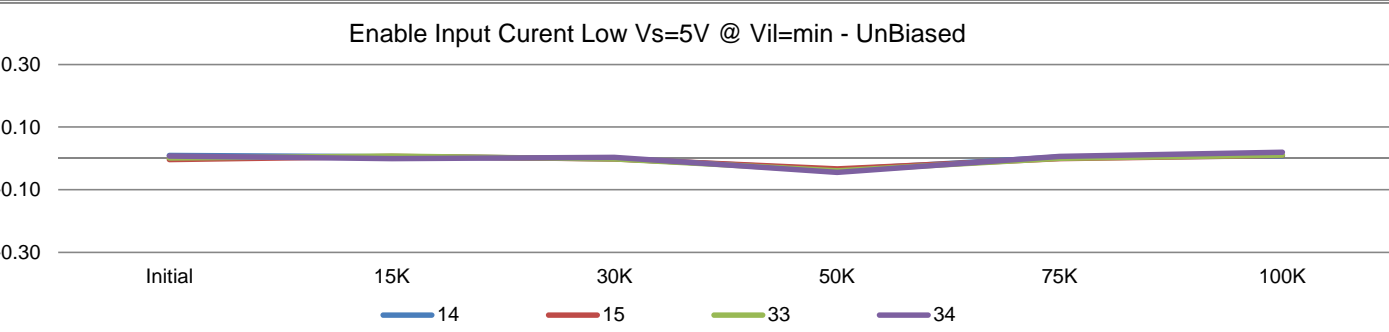
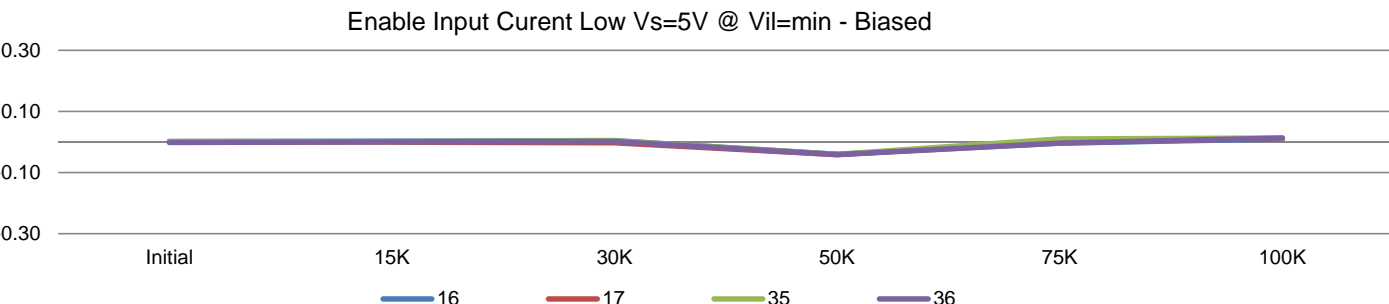
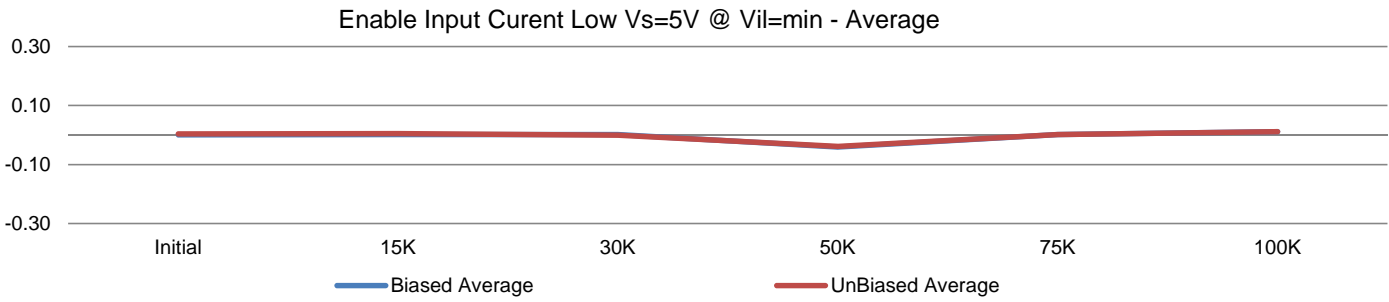
| T# 17 | | 5V Total Supply Current | | | | | | mA |
|----------|---------|-------------------------|----------|----------|----------|----------|----------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 25.91834 | 25.73115 | 25.61247 | 25.91492 | 25.76411 | 25.65883 | <30 |
| | 40 | 26.58567 | 26.53386 | 26.25588 | 26.64582 | 26.67827 | 26.67289 | |
| Biased | 16 | 27.05415 | 26.9451 | 26.7046 | 26.7843 | 26.59706 | 26.56045 | |
| | 17 | 25.62059 | 25.5854 | 25.30638 | 25.4516 | 25.25914 | 25.45998 | |
| | 35 | 25.86628 | 25.74885 | 25.576 | 25.74105 | 25.56212 | 25.86289 | |
| | 36 | 25.89856 | 25.79779 | 25.68951 | 25.93471 | 25.76411 | 25.72026 | |
| | Min | 25.6206 | 25.5854 | 25.3064 | 25.4516 | 25.2591 | 25.4600 | |
| | Max | 27.0542 | 26.9451 | 26.7046 | 26.7843 | 26.5971 | 26.5605 | |
| | Average | 26.1099 | 26.0193 | 25.8191 | 25.9779 | 25.7956 | 25.9009 | |
| UnBiased | 14 | 27.30505 | 27.17311 | 26.98675 | 27.16848 | 26.19933 | 26.90194 | |
| | 15 | 27.13431 | 27.05129 | 26.77748 | 26.87904 | 26.65536 | 26.73015 | |
| | 33 | 25.78924 | 25.63954 | 25.52501 | 26.12315 | 25.53297 | 26.12213 | |
| | 34 | 26.36288 | 26.19966 | 26.04765 | 25.61819 | 26.11499 | 26.12838 | |
| | Min | 25.7892 | 25.6395 | 25.5250 | 25.6182 | 25.5330 | 26.1221 | |
| | Max | 27.3051 | 27.1731 | 26.9868 | 27.1685 | 26.6554 | 26.9019 | |
| | Average | 26.6479 | 26.5159 | 26.3342 | 26.4472 | 26.1257 | 26.4707 | |



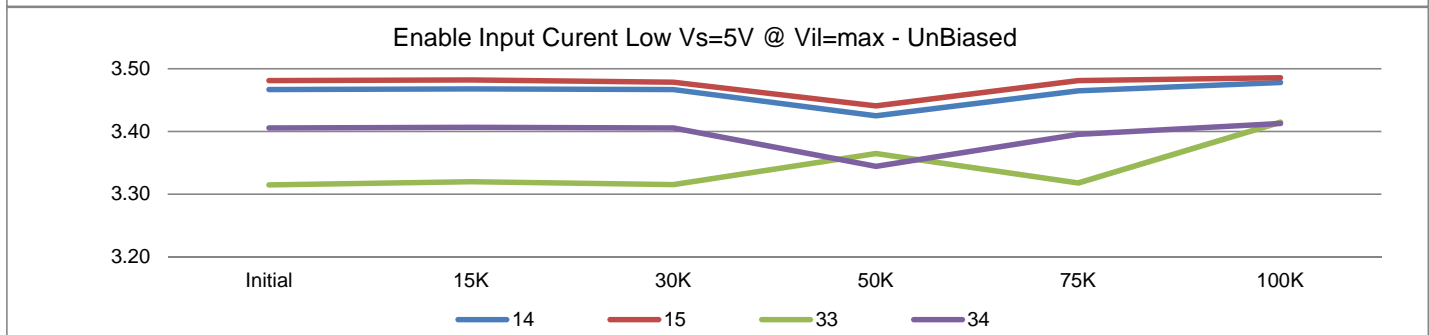
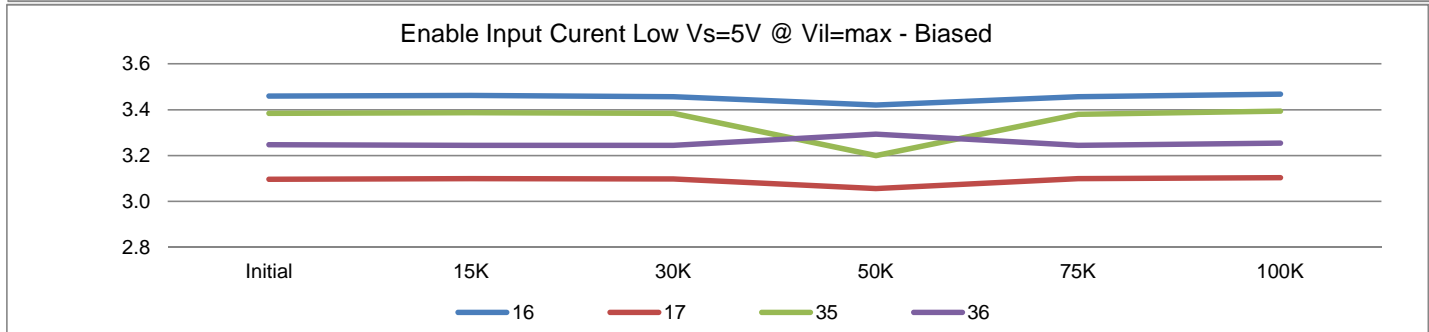
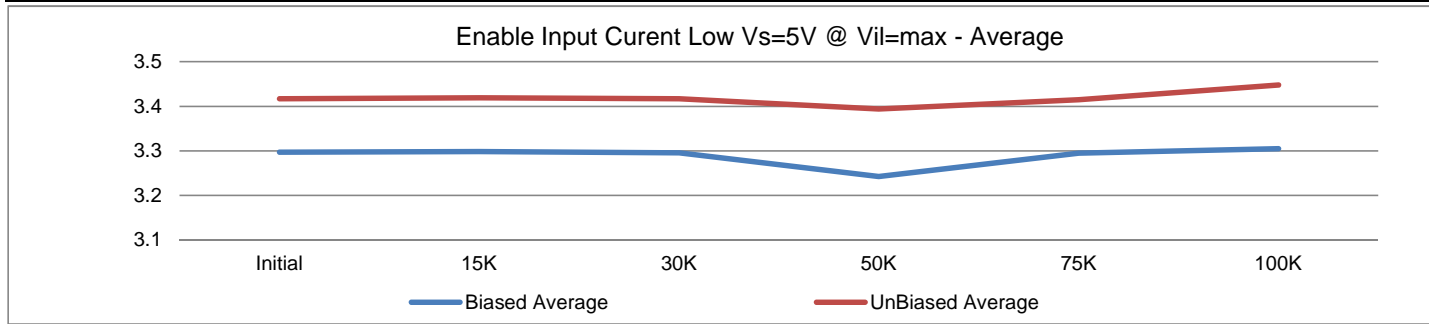
| T# 18 | | 5V Disable Current | | | | | | mA |
|----------|---------|--------------------|---------|---------|---------|---------|---------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 1.28546 | 1.28565 | 1.28357 | 1.28932 | 1.28599 | 1.28707 | <1.6 |
| | 40 | 1.32607 | 1.32626 | 1.32209 | 1.32993 | 1.32555 | 1.32455 | |
| Biased | 16 | 1.35522 | 1.35332 | 1.3502 | 1.34971 | 1.34846 | 1.34746 | |
| | 17 | 1.27505 | 1.26691 | 1.27212 | 1.27578 | 1.26933 | 1.27354 | |
| | 35 | 1.32294 | 1.3273 | 1.327 | 1.30598 | 1.32659 | 1.3308 | |
| | 36 | 1.30316 | 1.30231 | 1.30543 | 1.31639 | 1.30577 | 1.30894 | |
| | Min | 1.2751 | 1.2669 | 1.2721 | 1.2758 | 1.2693 | 1.2735 | |
| | Max | 1.3552 | 1.3533 | 1.3502 | 1.3497 | 1.3485 | 1.3475 | |
| | Average | 1.3141 | 1.3125 | 1.3138 | 1.3120 | 1.3125 | 1.3152 | |
| UnBiased | 14 | 1.35522 | 1.35957 | 1.35437 | 1.34762 | 1.35262 | 1.34954 | |
| | 15 | 1.3625 | 1.35853 | 1.35957 | 1.35804 | 1.35366 | 1.35475 | |
| | 33 | 1.3167 | 1.31584 | 1.31168 | 1.32993 | 1.3141 | 1.32664 | |
| | 34 | 1.33023 | 1.33458 | 1.32834 | 1.32784 | 1.33076 | 1.33184 | |
| | Min | 1.3167 | 1.3158 | 1.3117 | 1.3278 | 1.3141 | 1.3266 | |
| | Max | 1.3625 | 1.3596 | 1.3596 | 1.3580 | 1.3537 | 1.3548 | |
| | Average | 1.3412 | 1.3421 | 1.3385 | 1.3409 | 1.3378 | 1.3407 | |



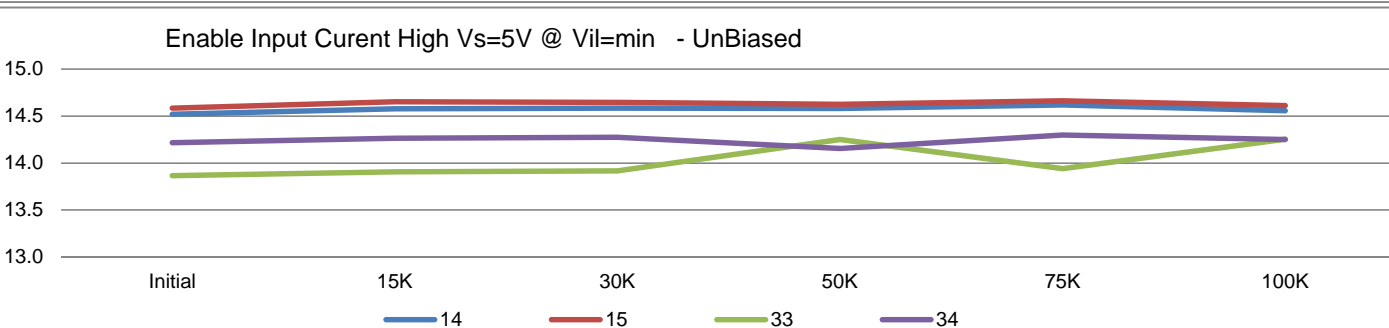
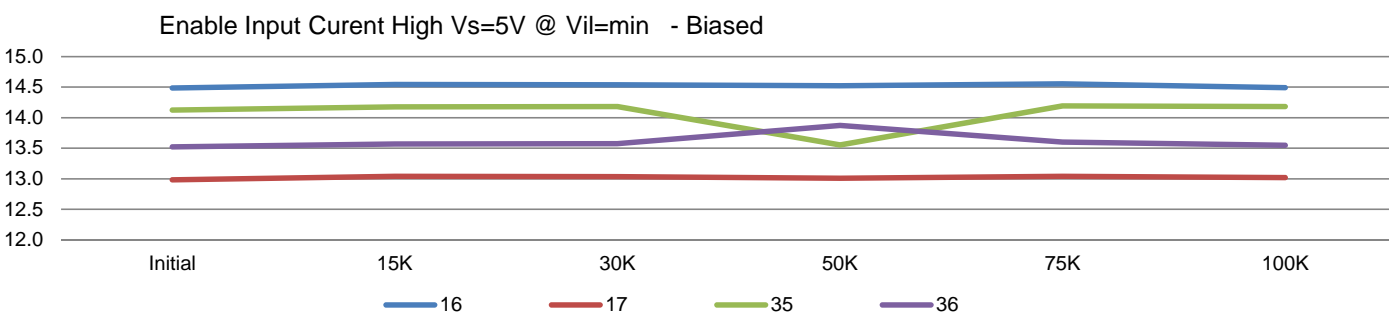
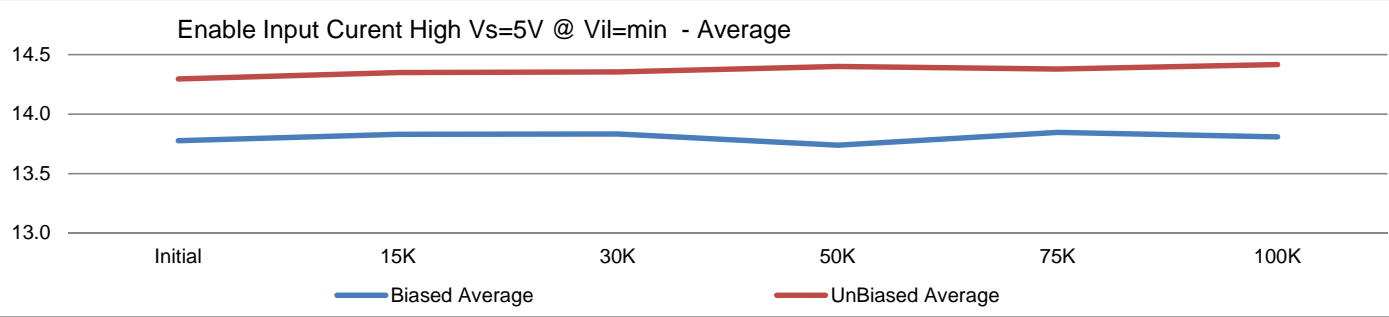
| T# 19 | | 5V IIL ENBL @ Vil min | | | | | | uA |
|----------|---------|-----------------------|----------|----------|----------|----------|---------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 0.00737 | 0.00297 | -0.00133 | -0.03624 | -0.00116 | 0.01096 | <2 |
| | 40 | -0.00444 | 0.00190 | -0.00133 | -0.03410 | 0.00099 | 0.01203 | |
| Biased | 16 | 0.00200 | 0.00297 | 0.00512 | -0.03946 | -0.00330 | 0.00988 | |
| | 17 | 0.00093 | -0.00025 | -0.00240 | -0.04054 | 0.00206 | 0.01096 | |
| | 35 | 0.00200 | 0.00190 | 0.00404 | -0.03946 | 0.01065 | 0.01311 | |
| | 36 | -0.00122 | 0.00082 | 0.00190 | -0.04054 | -0.00330 | 0.01311 | |
| | Min | -0.00122 | -0.00025 | -0.00240 | -0.04054 | -0.00330 | 0.00988 | |
| | Max | 0.00200 | 0.00297 | 0.00512 | -0.03946 | 0.01065 | 0.01311 | |
| | Average | 0.00093 | 0.00136 | 0.00217 | -0.04000 | 0.00153 | 0.01177 | |
| UnBiased | 14 | 0.00952 | 0.00512 | -0.00025 | -0.03624 | 0.00421 | 0.00774 | |
| | 15 | -0.00336 | 0.00619 | -0.00133 | -0.03302 | -0.00116 | 0.00988 | |
| | 33 | 0.00093 | 0.00726 | -0.00133 | -0.03946 | -0.00008 | 0.01096 | |
| | 34 | 0.00737 | -0.00025 | 0.00297 | -0.04483 | 0.00636 | 0.01955 | |
| | Min | -0.00336 | -0.00025 | -0.00133 | -0.04483 | -0.00116 | 0.00774 | |
| | Max | 0.00952 | 0.00726 | 0.00297 | -0.03302 | 0.00636 | 0.01955 | |
| | Average | 0.00362 | 0.00458 | 0.00001 | -0.03839 | 0.00233 | 0.01203 | |



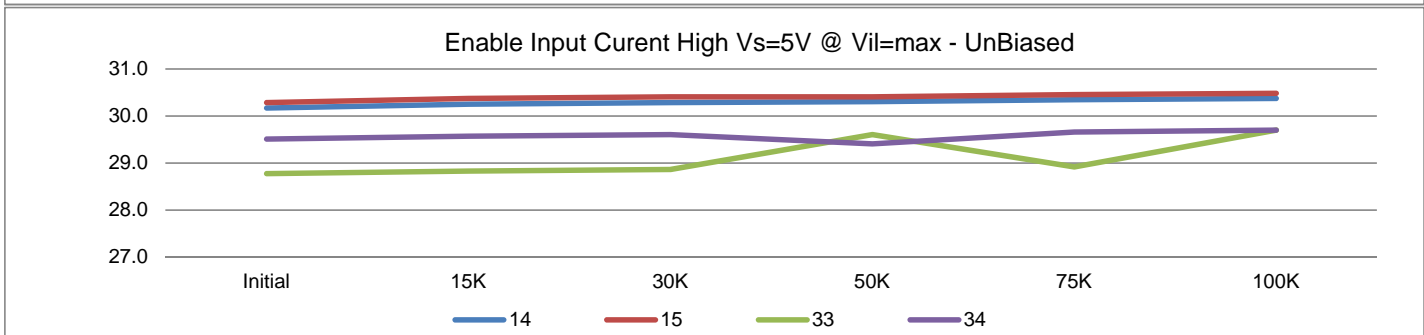
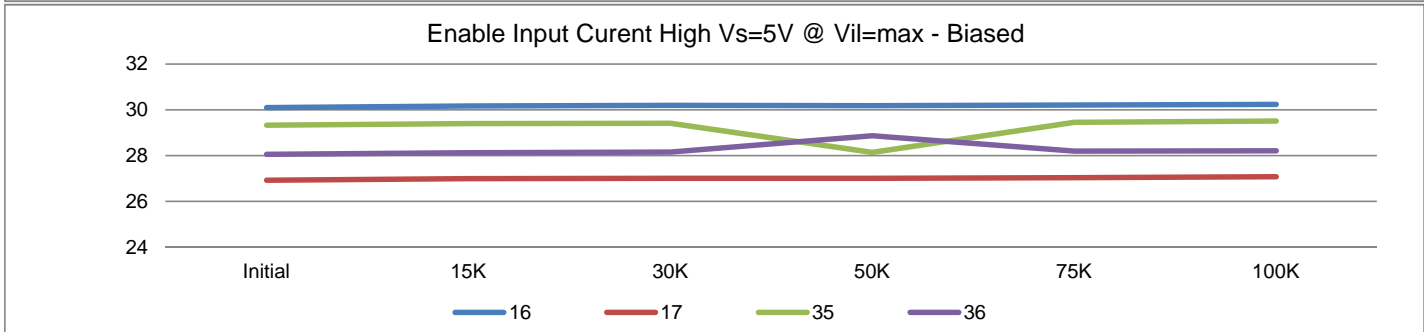
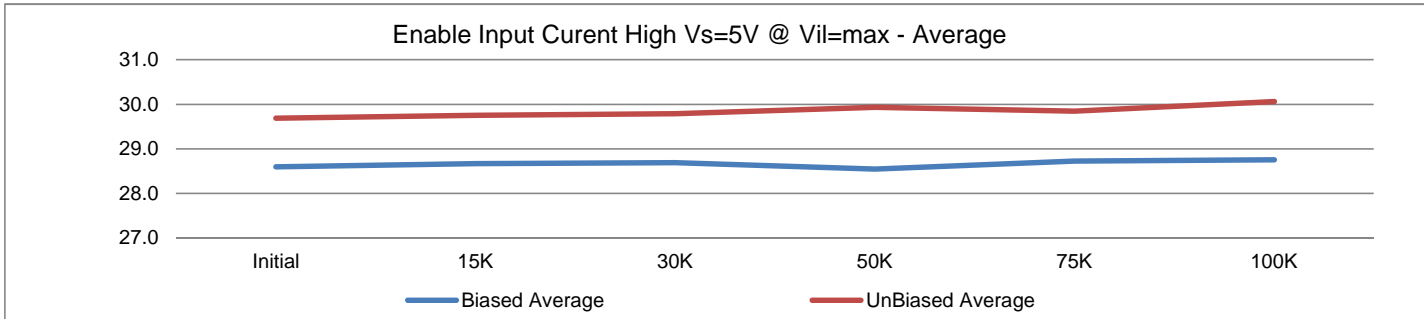
| T# 20 | | 5V IIL ENBL @ Vil max | | | | | | uA |
|----------|---------|-----------------------|---------|---------|---------|---------|---------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 3.2318 | 3.23709 | 3.23386 | 3.19388 | 3.23731 | 3.24292 | <5 |
| | 40 | 3.37029 | 3.36807 | 3.36377 | 3.3281 | 3.36936 | 3.37498 | |
| Biased | 16 | 3.4594 | 3.46255 | 3.4561 | 3.42044 | 3.45633 | 3.46838 | |
| | 17 | 3.09652 | 3.09966 | 3.09752 | 3.05537 | 3.09881 | 3.10335 | |
| | 35 | 3.38425 | 3.38739 | 3.384 | 3.20033 | 3.3801 | 3.39323 | |
| | 36 | 3.2479 | 3.2446 | 3.2446 | 3.29374 | 3.24482 | 3.25366 | |
| | Min | 3.0965 | 3.0997 | 3.0975 | 3.0554 | 3.0988 | 3.1034 | |
| | Max | 3.4594 | 3.4626 | 3.4561 | 3.4204 | 3.4563 | 3.4684 | |
| | Average | 3.2970 | 3.2986 | 3.2956 | 3.2425 | 3.2950 | 3.3047 | |
| UnBiased | 14 | 3.46691 | 3.46791 | 3.46684 | 3.42473 | 3.46492 | 3.47804 | |
| | 15 | 3.48087 | 3.48187 | 3.47865 | 3.44084 | 3.48102 | 3.48556 | |
| | 33 | 3.31446 | 3.31975 | 3.31546 | 3.36461 | 3.31783 | 3.4147 | |
| | 34 | 3.40572 | 3.40672 | 3.40564 | 3.3442 | 3.39513 | 3.41255 | |
| | Min | 3.3145 | 3.3198 | 3.3155 | 3.3442 | 3.3178 | 3.4126 | |
| | Max | 3.4809 | 3.4819 | 3.4787 | 3.4408 | 3.4810 | 3.4856 | |
| | Average | 3.4170 | 3.4191 | 3.4166 | 3.3936 | 3.4147 | 3.4477 | |



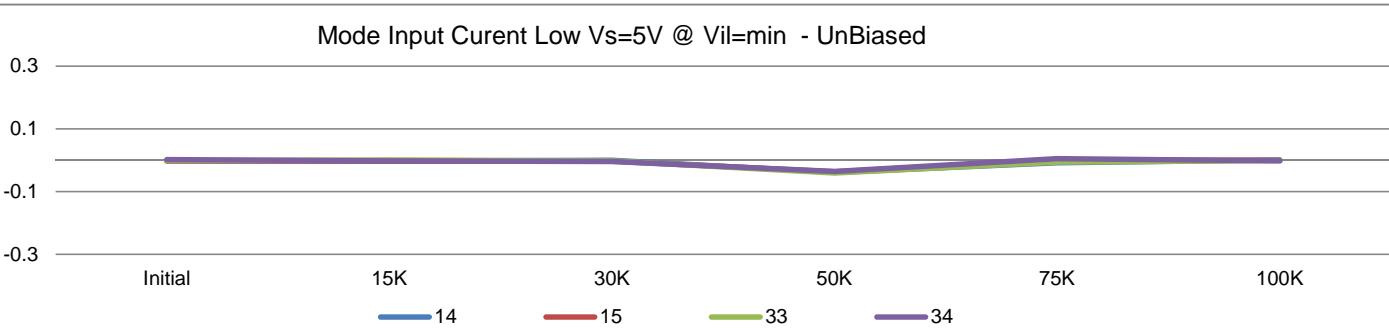
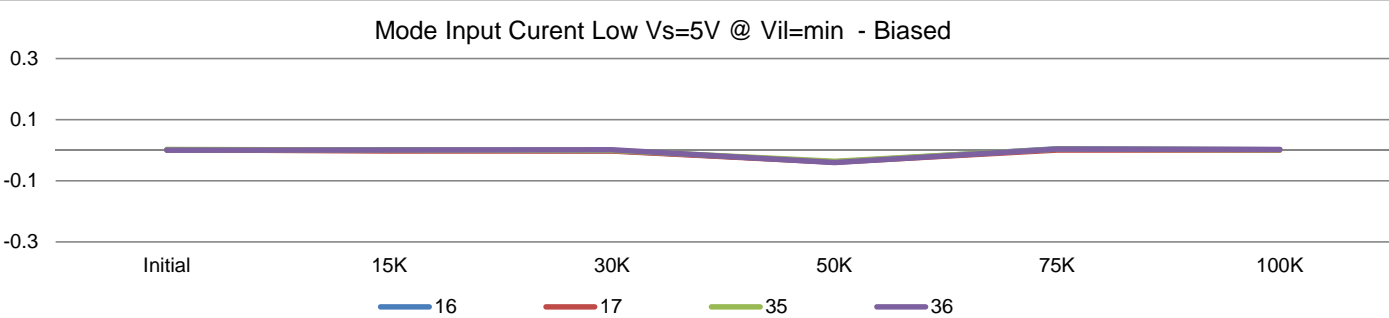
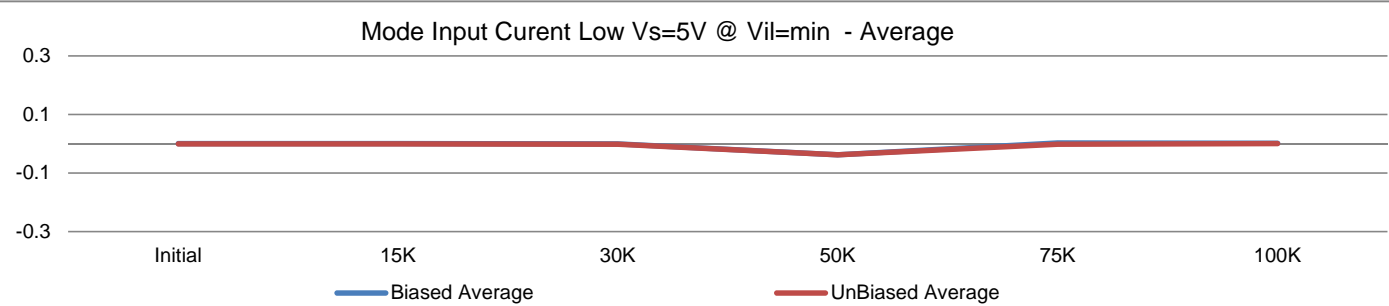
| T# 21 | | 5V IIH ENBL @ VIH min | | | | | | uA |
|----------|---------|-----------------------|----------|----------|----------|----------|----------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 13.48568 | 13.46747 | 13.45673 | 13.44885 | 13.46784 | 13.41316 | <20 |
| | 40 | 14.05899 | 14.05688 | 14.02467 | 14.02866 | 14.07122 | 14.01546 | |
| Biased | 16 | 14.48306 | 14.54323 | 14.53894 | 14.52042 | 14.55006 | 14.49107 | |
| | 17 | 12.98109 | 13.03909 | 13.03265 | 13.0097 | 13.04161 | 13.01915 | |
| | 35 | 14.12555 | 14.17713 | 14.183 | 13.55515 | 14.19254 | 14.1808 | |
| | 36 | 13.52218 | 13.56839 | 13.57483 | 13.87404 | 13.60204 | 13.54736 | |
| | Min | 12.9811 | 13.0391 | 13.0327 | 13.0097 | 13.0416 | 13.0192 | |
| | Max | 14.4831 | 14.5432 | 14.5389 | 14.5204 | 14.5501 | 14.4911 | |
| | Average | 13.7780 | 13.8320 | 13.8322 | 13.7398 | 13.8466 | 13.8096 | |
| UnBiased | 14 | 14.51849 | 14.57759 | 14.5851 | 14.57948 | 14.61769 | 14.55764 | |
| | 15 | 14.5829 | 14.65059 | 14.64415 | 14.6235 | 14.66171 | 14.61132 | |
| | 33 | 13.86681 | 13.90765 | 13.91731 | 14.25092 | 13.94024 | 14.25488 | |
| | 34 | 14.21573 | 14.26409 | 14.27375 | 14.15643 | 14.29883 | 14.25058 | |
| | Min | 13.8668 | 13.9077 | 13.9173 | 14.1564 | 13.9402 | 14.2506 | |
| | Max | 14.5829 | 14.6506 | 14.6442 | 14.6235 | 14.6617 | 14.6113 | |
| | Average | 14.2960 | 14.3500 | 14.3551 | 14.4026 | 14.3796 | 14.4186 | |



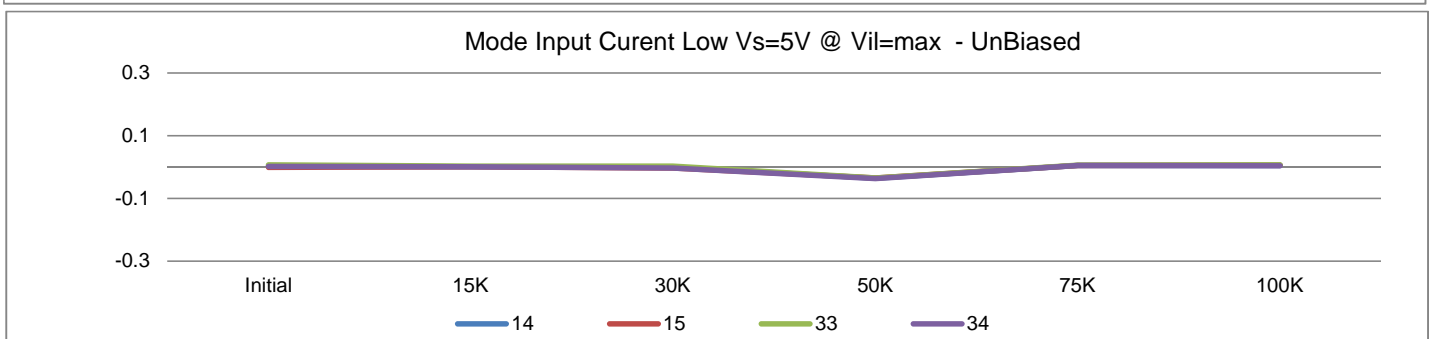
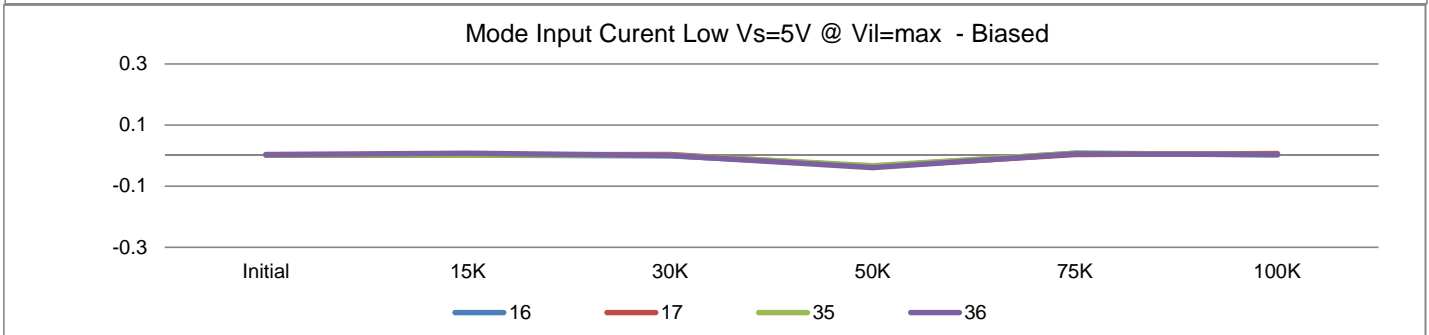
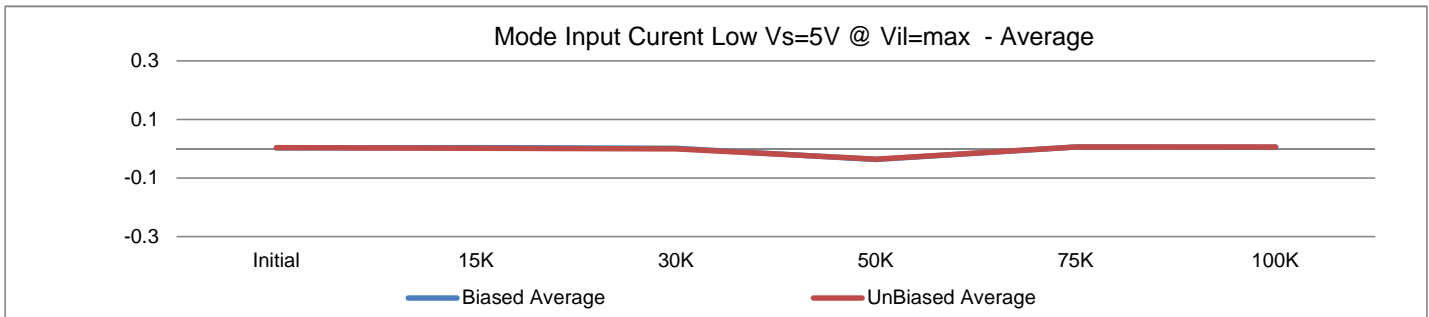
| T# 22 | | 5V IIH ENBL @ VIH max | | | | | | uA |
|----------|---------|-----------------------|----------|----------|----------|----------|----------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 27.98684 | 27.96772 | 27.96128 | 27.94510 | 27.97365 | 27.97566 | <40 |
| | 40 | 29.19249 | 29.18198 | 29.15407 | 29.16377 | 29.19866 | 29.21461 | |
| Biased | 16 | 30.09217 | 30.16756 | 30.19011 | 30.17414 | 30.21216 | 30.23025 | |
| | 17 | 26.92397 | 26.99932 | 27.00469 | 27.00452 | 27.03208 | 27.07704 | |
| | 35 | 29.32454 | 29.39456 | 29.41711 | 28.14696 | 29.45311 | 29.50342 | |
| | 36 | 28.06199 | 28.13198 | 28.15883 | 28.86528 | 28.19912 | 28.21615 | |
| | Min | 26.92397 | 26.99932 | 27.00469 | 27.00452 | 27.03208 | 27.07704 | |
| | Max | 30.09217 | 30.16756 | 30.19011 | 30.17414 | 30.21216 | 30.23025 | |
| | Average | 28.60067 | 28.67336 | 28.69269 | 28.54773 | 28.72412 | 28.75672 | |
| UnBiased | 14 | 30.17054 | 30.24916 | 30.28781 | 30.30298 | 30.34744 | 30.37197 | |
| | 15 | 30.28649 | 30.37263 | 30.40591 | 30.40713 | 30.45803 | 30.48577 | |
| | 33 | 28.77701 | 28.82769 | 28.86634 | 29.60614 | 28.91844 | 29.69989 | |
| | 34 | 29.51243 | 29.57171 | 29.60284 | 29.40536 | 29.66032 | 29.69881 | |
| | Min | 28.77701 | 28.82769 | 28.86634 | 29.40536 | 28.91844 | 29.69881 | |
| | Max | 30.28649 | 30.37263 | 30.40591 | 30.40713 | 30.45803 | 30.48577 | |
| | Average | 29.68662 | 29.75530 | 29.79073 | 29.93040 | 29.84606 | 30.06411 | |



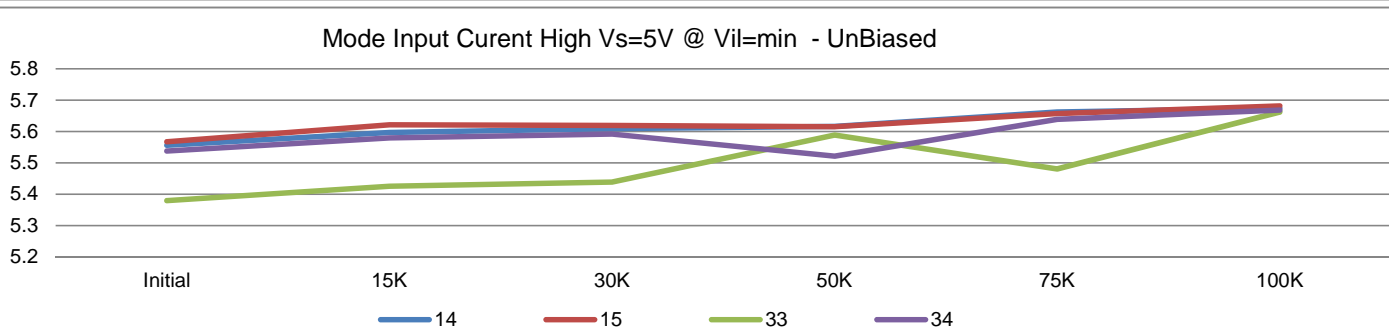
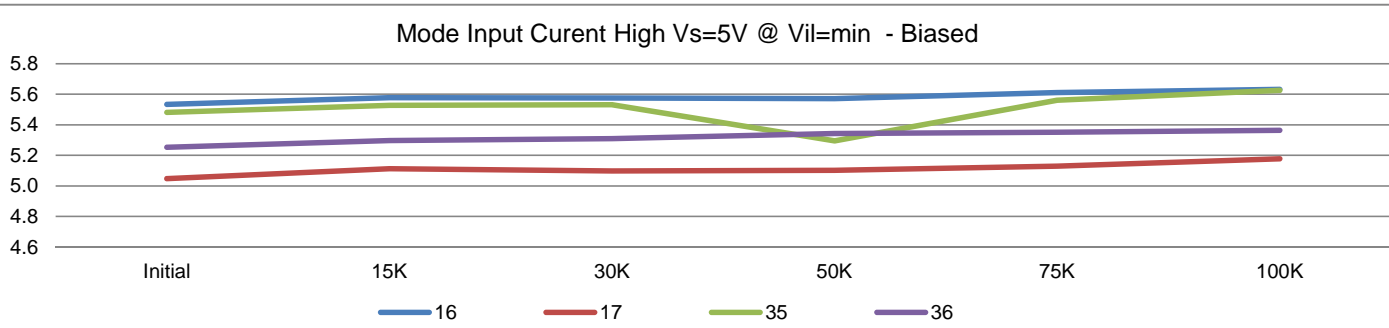
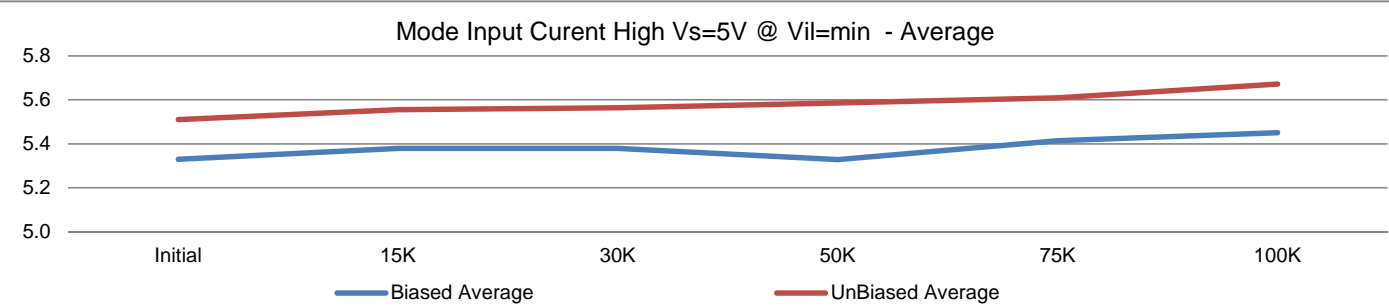
| T# 23 | | 5V IIL MODE @ VIL min | | | | | | uA |
|----------|---------|-----------------------|----------|----------|----------|----------|----------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 0.00114 | -0.00060 | -0.00379 | -0.03800 | 0.00105 | 0.00368 | <2 |
| | 40 | 0.00220 | -0.00060 | -0.00166 | -0.03800 | 0.00105 | 0.00262 | |
| Biased | 16 | 0.00008 | 0.00152 | -0.00166 | -0.03800 | 0.00423 | 0.00156 | |
| | 17 | 0.00114 | -0.00272 | -0.00272 | -0.03907 | -0.00001 | 0.00050 | |
| | 35 | 0.00220 | 0.00046 | -0.00060 | -0.03588 | 0.00317 | 0.00156 | |
| | 36 | 0.00008 | 0.00046 | 0.00152 | -0.04013 | 0.00317 | 0.00262 | |
| | Min | 0.00008 | -0.00272 | -0.00272 | -0.04013 | -0.00001 | 0.00050 | |
| | Max | 0.00220 | 0.00152 | 0.00152 | -0.03588 | 0.00423 | 0.00262 | |
| | Average | 0.00088 | -0.00007 | -0.00087 | -0.03827 | 0.00264 | 0.00156 | |
| UnBiased | 14 | -0.00204 | -0.00272 | 0.00046 | -0.03907 | -0.00850 | 0.00156 | |
| | 15 | -0.00204 | -0.00166 | -0.00272 | -0.03694 | 0.00105 | 0.00050 | |
| | 33 | -0.00098 | 0.00152 | -0.00166 | -0.04013 | -0.00637 | -0.00056 | |
| | 34 | 0.00220 | -0.00166 | -0.00379 | -0.03588 | 0.00529 | -0.00162 | |
| | Min | -0.00204 | -0.00272 | -0.00379 | -0.04013 | -0.00850 | -0.00162 | |
| | Max | 0.00220 | 0.00152 | 0.00046 | -0.03588 | 0.00529 | 0.00156 | |
| | Average | -0.00071 | -0.00113 | -0.00193 | -0.03801 | -0.00213 | -0.00003 | |



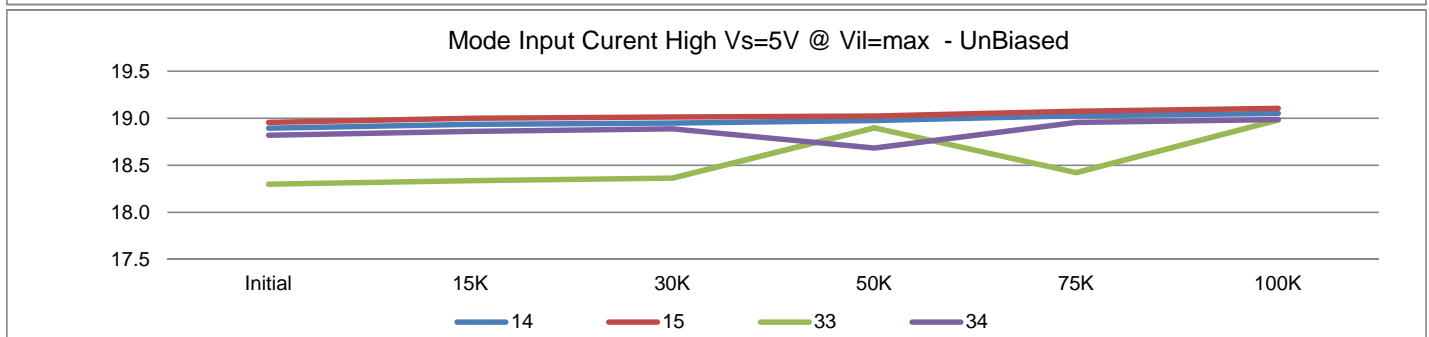
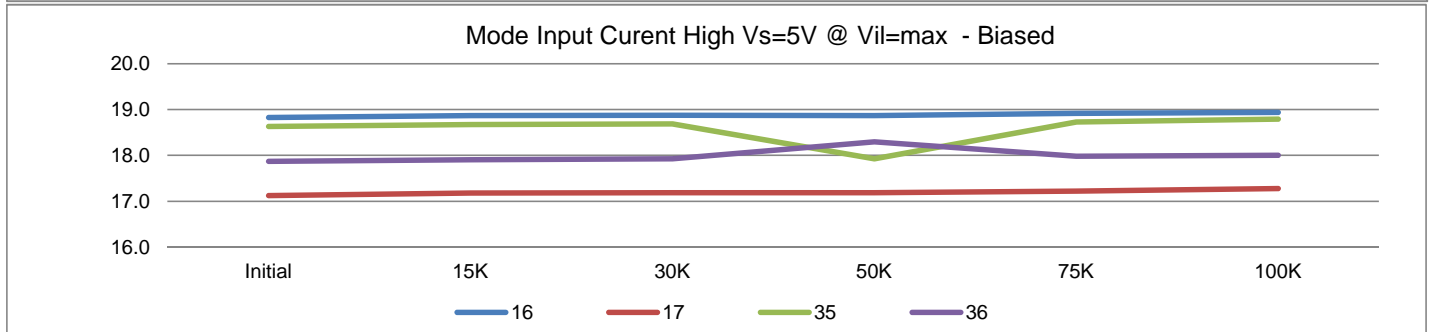
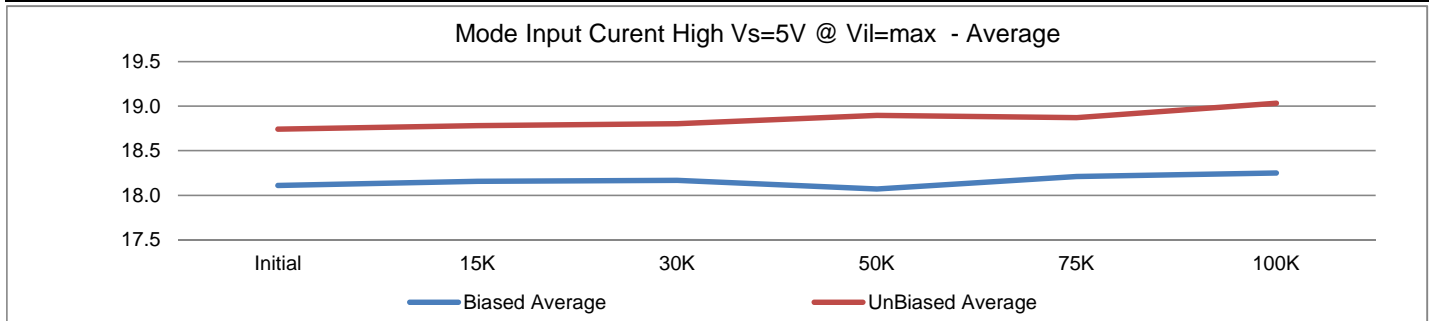
| T# 24 | | 5V IIL MODE @ Vil max | | | | | | uA |
|----------|---------|-----------------------|------------|-------------|----------|---------|---------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 0.00139 | 0.00063443 | -0.00149 | -0.03243 | 0.00654 | 0.00386 | <10 |
| | 40 | 0.00245 | 0.00169 | -0.00149 | -0.03667 | 0.00547 | 0.0028 | |
| Biased | 16 | 0.00139 | 0.00169 | -0.00042608 | -0.03561 | 0.0076 | 0.0028 | |
| | 17 | 0.00245 | 0.00276 | 0.00382 | -0.03667 | 0.00335 | 0.00705 | |
| | 35 | 0.00245 | 0.00169 | 0.002 | -0.03349 | 0.0076 | 0.00386 | |
| | 36 | 0.00351 | 0.00806 | 0.00063443 | -0.03985 | 0.00547 | 0.00386 | |
| | Min | 0.0014 | 0.0017 | -0.0004 | -0.0399 | 0.0034 | 0.0028 | |
| | Max | 0.0035 | 0.0081 | 0.0038 | -0.0335 | 0.0076 | 0.0071 | |
| | Average | 0.0025 | 0.0036 | 0.0014 | -0.0364 | 0.0060 | 0.0044 | |
| UnBiased | 14 | 0.00351 | 0.00169 | 0.00063443 | -0.03561 | 0.00547 | 0.00492 | |
| | 15 | -0.00072951 | 0.00169 | -0.00255 | -0.03455 | 0.00547 | 0.00599 | |
| | 33 | 0.00775 | 0.00276 | 0.00276 | -0.03455 | 0.00654 | 0.00705 | |
| | 34 | 0.00245 | 0.00169 | -0.00255 | -0.03667 | 0.00547 | 0.00386 | |
| | Min | -0.0007 | 0.0017 | -0.0026 | -0.0367 | 0.0055 | 0.0039 | |
| | Max | 0.0078 | 0.0028 | 0.0028 | -0.0346 | 0.0065 | 0.0071 | |
| | Average | 0.0032 | 0.0020 | -0.0004 | -0.0353 | 0.0057 | 0.0055 | |



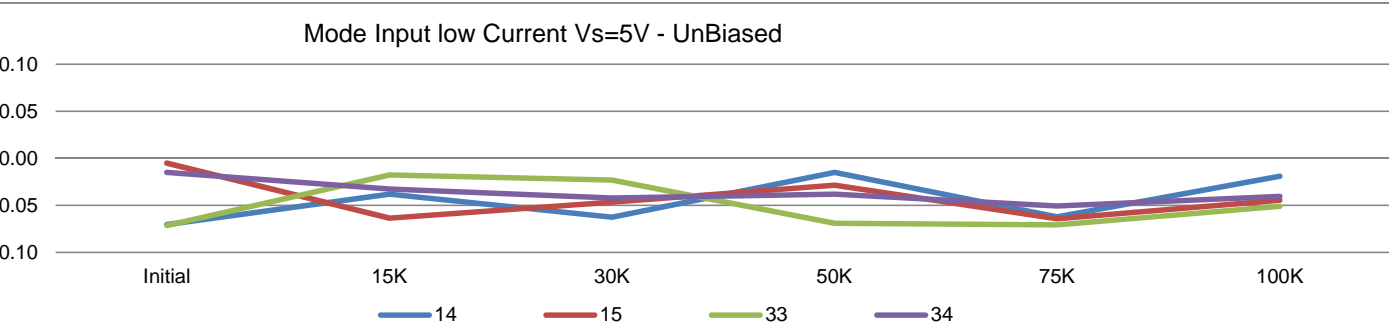
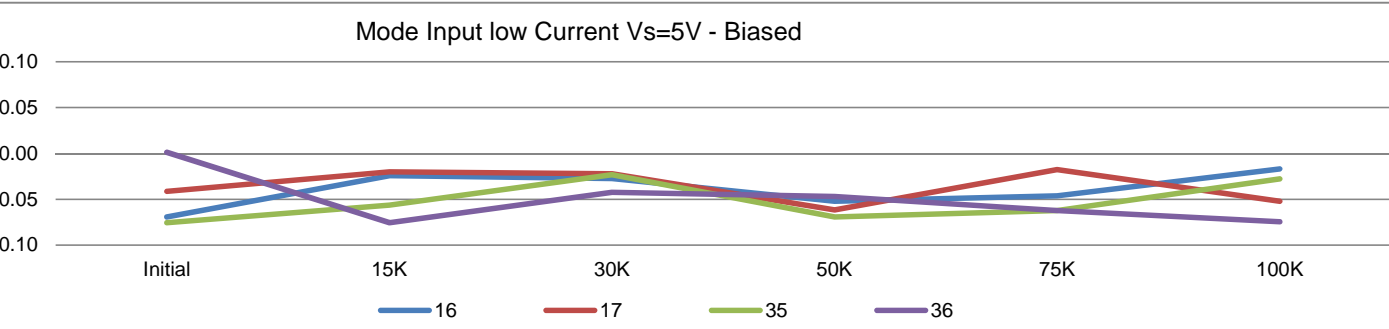
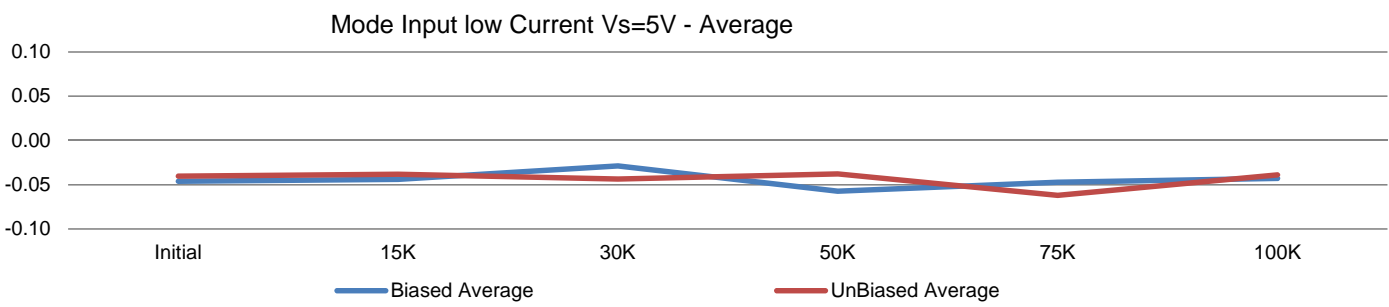
| T# 25 | | 5V IIH MODE @ VIH min | | | | | | uA |
|----------|---------|-----------------------|---------|---------|---------|---------|---------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 5.25521 | 5.23511 | 5.20966 | 5.22114 | 5.24523 | 5.24156 | <10 |
| | 40 | 5.47261 | 5.46100 | 5.4313 | 5.44493 | 5.48808 | 5.50138 | |
| Biased | 16 | 5.53306 | 5.57871 | 5.57659 | 5.57114 | 5.61216 | 5.63289 | |
| | 17 | 5.04736 | 5.11315 | 5.09724 | 5.10235 | 5.13069 | 5.17687 | |
| | 35 | 5.48215 | 5.52781 | 5.532 | 5.29538 | 5.56019 | 5.62546 | |
| | 36 | 5.25415 | 5.29768 | 5.31041 | 5.34311 | 5.35128 | 5.36458 | |
| | Min | 5.0474 | 5.1132 | 5.0972 | 5.1024 | 5.1307 | 5.1769 | |
| | Max | 5.5331 | 5.5787 | 5.5766 | 5.5711 | 5.6122 | 5.6329 | |
| | Average | 5.3292 | 5.3793 | 5.3791 | 5.3280 | 5.4136 | 5.4500 | |
| UnBiased | 14 | 5.55639 | 5.59674 | 5.60947 | 5.61675 | 5.662 | 5.67425 | |
| | 15 | 5.56699 | 5.62113 | 5.61901 | 5.61569 | 5.6567 | 5.68167 | |
| | 33 | 5.37929 | 5.42494 | 5.43873 | 5.58917 | 5.48066 | 5.66258 | |
| | 34 | 5.5373 | 5.57977 | 5.59144 | 5.52129 | 5.63867 | 5.66788 | |
| | Min | 5.3793 | 5.4249 | 5.4387 | 5.5213 | 5.4807 | 5.6626 | |
| | Max | 5.5670 | 5.6211 | 5.6190 | 5.6168 | 5.6620 | 5.6817 | |
| | Average | 5.5100 | 5.5556 | 5.5647 | 5.5857 | 5.6095 | 5.6716 | |



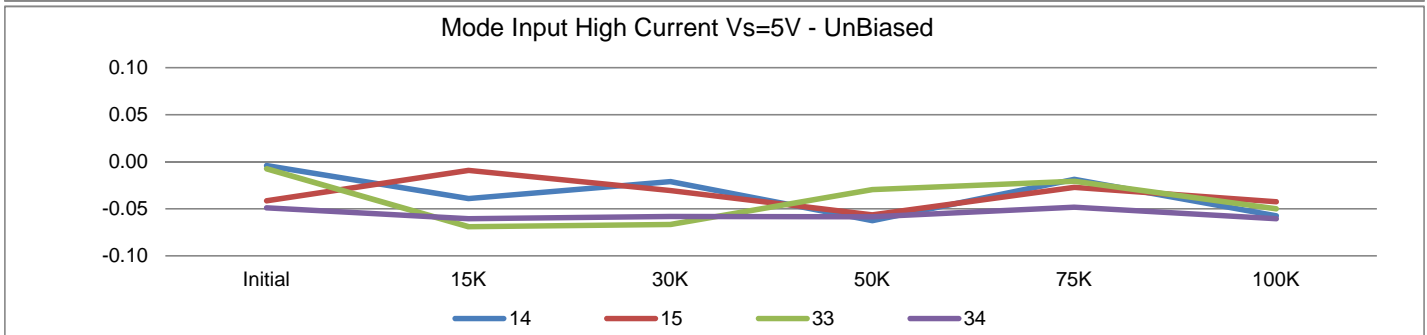
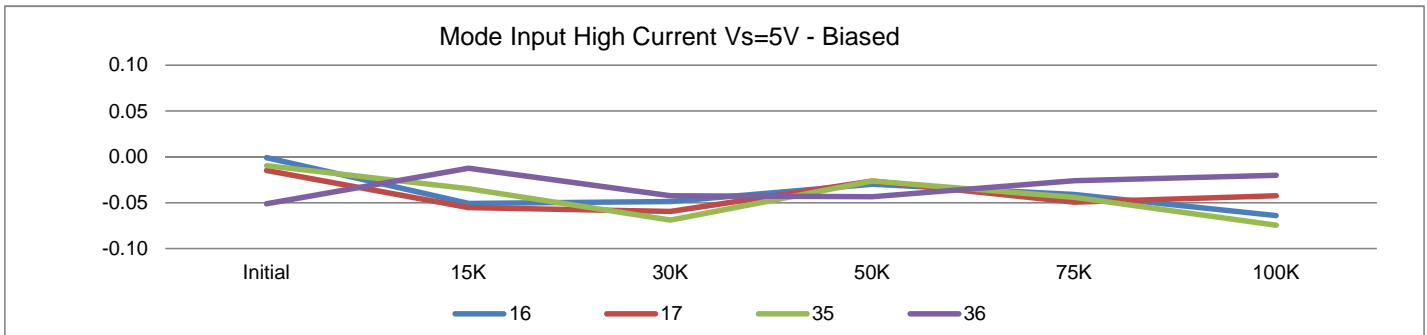
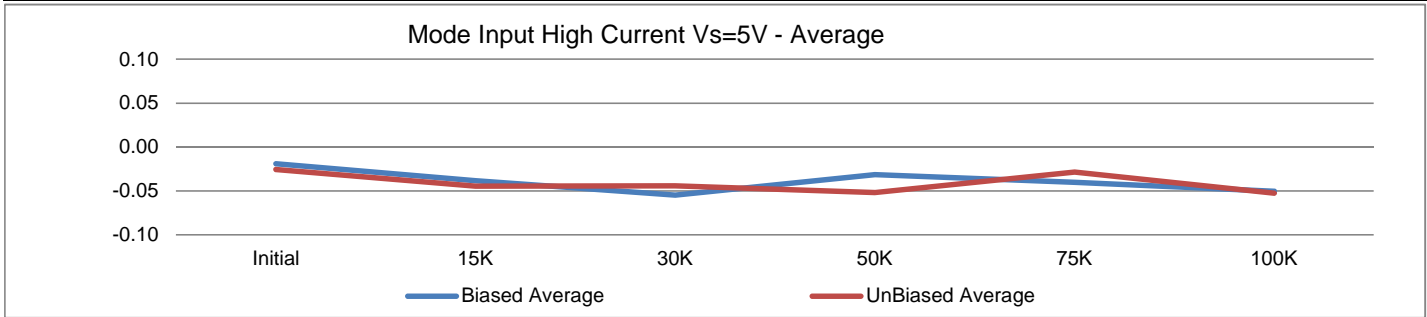
| T# 26 | | 5V I IH MODE @ VIH max | | | | | | uA |
|----------|---------|------------------------|----------|----------|----------|----------|----------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 17.82356 | 17.80324 | 17.78415 | 17.7913 | 17.80689 | 17.80764 | <30 |
| | 40 | 18.58605 | 18.58377 | 18.54347 | 18.56025 | 18.60014 | 18.61363 | |
| Biased | 16 | 18.82465 | 18.86799 | 18.87223 | 18.86995 | 18.91405 | 18.93496 | |
| | 17 | 17.12258 | 17.17754 | 17.18391 | 17.1878 | 17.22256 | 17.2742 | |
| | 35 | 18.62847 | 18.67179 | 18.689 | 17.92282 | 18.7274 | 18.79179 | |
| | 36 | 17.86916 | 17.90611 | 17.92838 | 18.29616 | 17.98187 | 17.99959 | |
| | Min | 17.1226 | 17.1775 | 17.1839 | 17.1878 | 17.2226 | 17.2742 | |
| | Max | 18.8247 | 18.8680 | 18.8722 | 18.8700 | 18.9141 | 18.9350 | |
| | Average | 18.1112 | 18.1559 | 18.1683 | 18.0692 | 18.2115 | 18.2501 | |
| UnBiased | 14 | 18.89465 | 18.93374 | 18.94858 | 18.97708 | 19.02646 | 19.05055 | |
| | 15 | 18.95509 | 18.99949 | 19.01327 | 19.02374 | 19.0763 | 19.10464 | |
| | 33 | 18.29866 | 18.33561 | 18.36213 | 18.89647 | 18.42198 | 18.98374 | |
| | 34 | 18.82041 | 18.86162 | 18.88813 | 18.68328 | 18.95435 | 18.98586 | |
| | Min | 18.2987 | 18.3356 | 18.3621 | 18.6833 | 18.4220 | 18.9837 | |
| | Max | 18.9551 | 18.9995 | 19.0133 | 19.0237 | 19.0763 | 19.1046 | |
| | Average | 18.7422 | 18.7826 | 18.8030 | 18.8951 | 18.8698 | 19.0312 | |



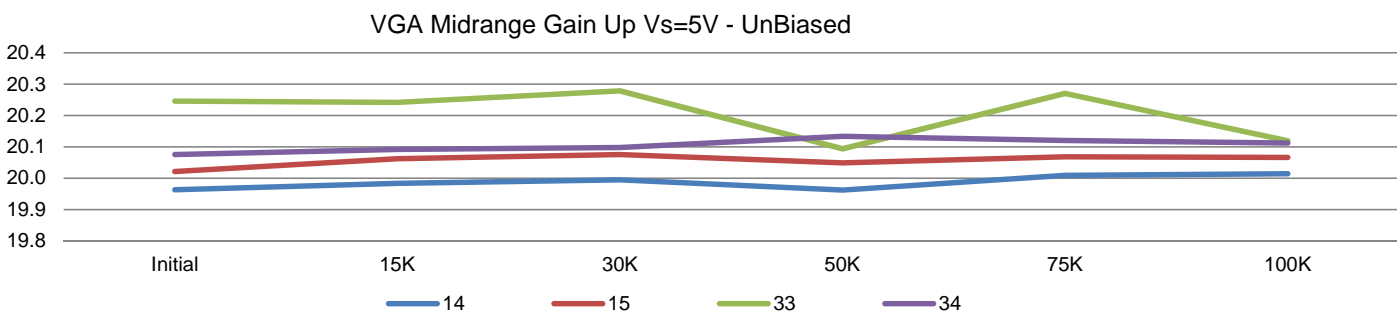
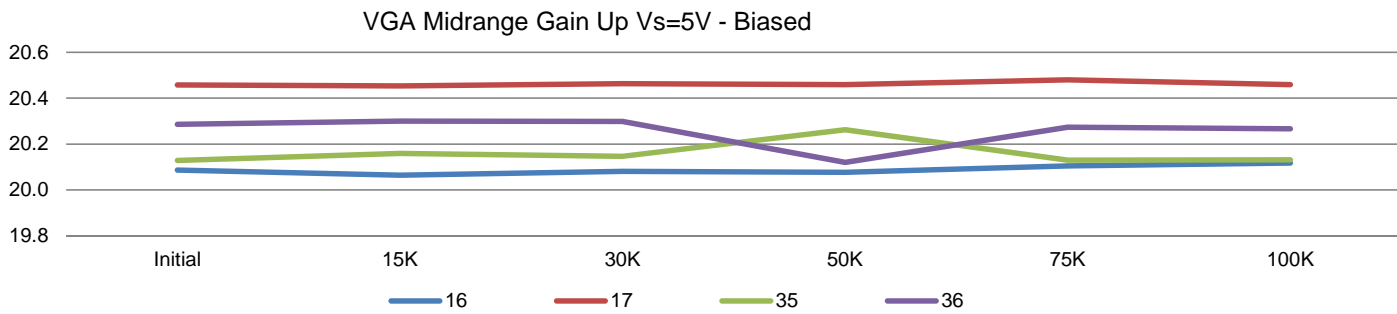
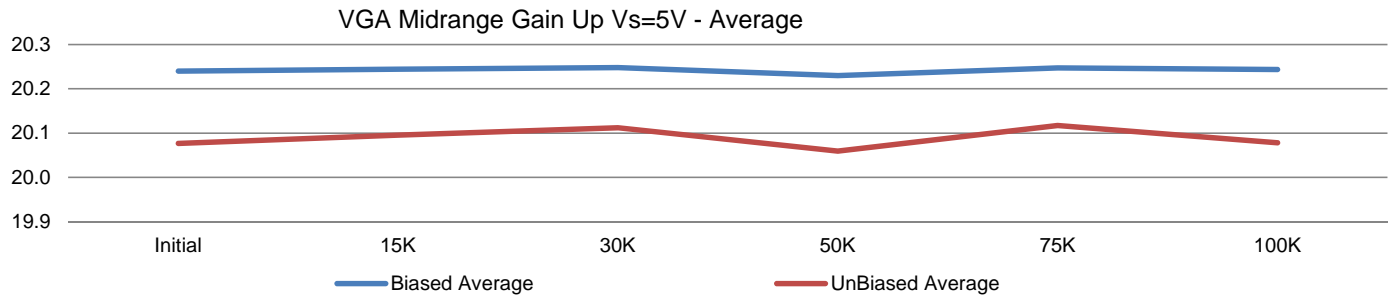
| T# 27 | | 5V IGAIN @ 0V | | | | | | uA |
|----------|---------|---------------|----------|----------|----------|----------|----------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | -0.07561 | -0.01249 | -0.03168 | -0.04147 | -0.01643 | -0.06496 | <2 |
| | 40 | 0.00222 | -0.04234 | -0.02315 | -0.07026 | -0.01963 | -0.03831 | |
| Biased | 16 | -0.06922 | -0.02422 | -0.02742 | -0.05213 | -0.04629 | -0.01698 | |
| | 17 | -0.04149 | -0.01995 | -0.02208 | -0.06173 | -0.0175 | -0.05217 | |
| | 35 | -0.07561 | -0.0562 | -0.023 | -0.06919 | -0.06228 | -0.02764 | |
| | 36 | 0.00115 | -0.0754 | -0.04234 | -0.0468 | -0.06228 | -0.07456 | |
| | Min | -0.0756 | -0.0754 | -0.0423 | -0.0692 | -0.0623 | -0.0746 | |
| | Max | 0.0012 | -0.0200 | -0.0221 | -0.0468 | -0.0175 | -0.0170 | |
| | Average | -0.0463 | -0.0439 | -0.0287 | -0.0575 | -0.0471 | -0.0428 | |
| UnBiased | 14 | -0.07028 | -0.03808 | -0.0626 | -0.01481 | -0.06228 | -0.01911 | |
| | 15 | -0.00524 | -0.06367 | -0.04661 | -0.02867 | -0.06441 | -0.0447 | |
| | 33 | -0.07135 | -0.01782 | -0.02315 | -0.06919 | -0.07081 | -0.0511 | |
| | 34 | -0.01484 | -0.03275 | -0.04234 | -0.03827 | -0.05055 | -0.04044 | |
| | Min | -0.0714 | -0.0637 | -0.0626 | -0.0692 | -0.0708 | -0.0511 | |
| | Max | -0.0052 | -0.0178 | -0.0232 | -0.0148 | -0.0506 | -0.0191 | |
| | Average | -0.0404 | -0.0381 | -0.0437 | -0.0377 | -0.0620 | -0.0388 | |



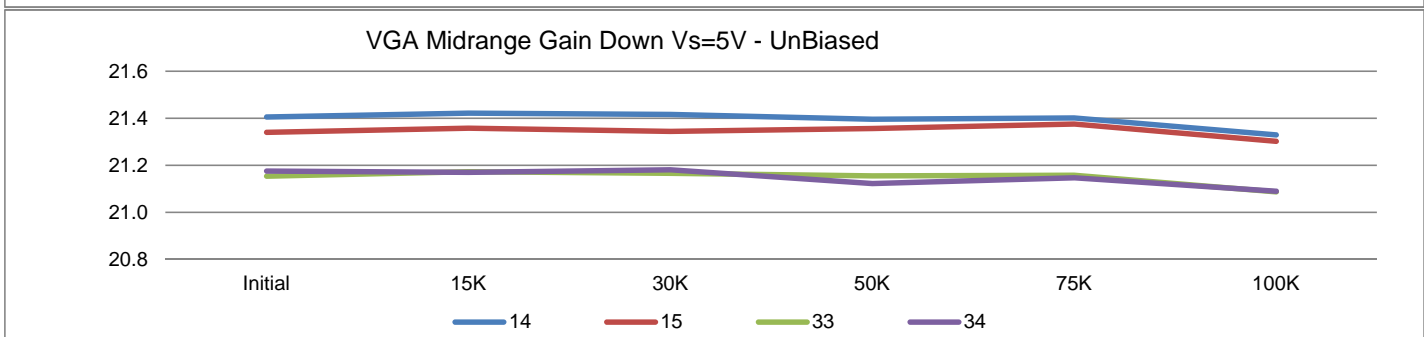
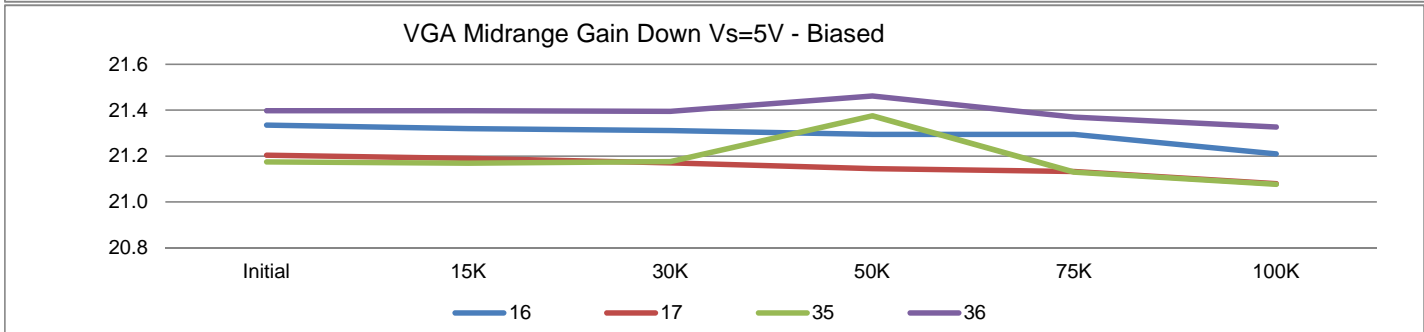
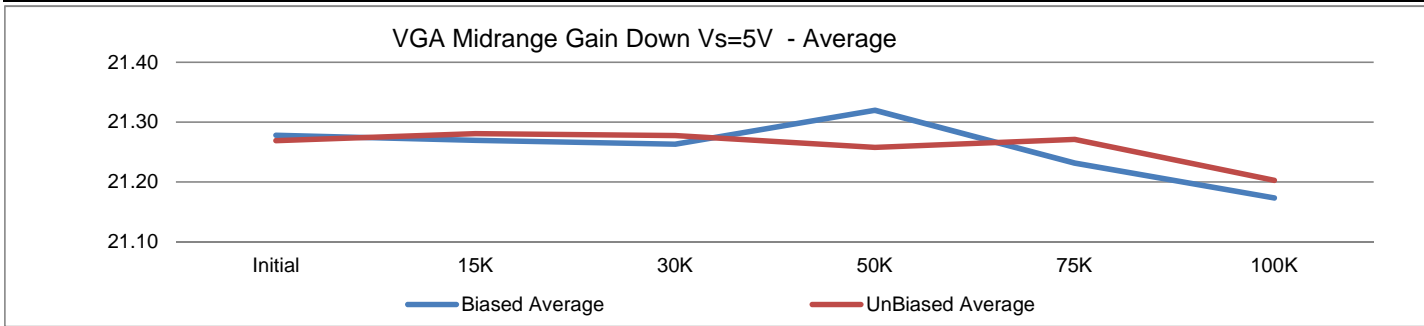
| T# 28 | | 5V IGAIN @ 1V | | | | | | uA |
|----------|---------|---------------|----------|----------|----------|----------|----------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | -0.00842 | -0.06471 | -0.05085 | -0.03928 | -0.06545 | -0.02227 | <2 |
| | 40 | -0.06706 | -0.04658 | -0.06577 | -0.02222 | -0.06332 | -0.0468 | |
| Biased | 16 | -0.00095722 | -0.05085 | -0.04871 | -0.02969 | -0.04093 | -0.06386 | |
| | 17 | -0.01482 | -0.05511 | -0.05938 | -0.02649 | -0.04946 | -0.04253 | |
| | 35 | -0.00949 | -0.03485 | -0.069 | -0.02649 | -0.04413 | -0.07452 | |
| | 36 | -0.05107 | -0.01246 | -0.04232 | -0.04355 | -0.026 | -0.02014 | |
| | Min | -0.0511 | -0.0551 | -0.0690 | -0.0436 | -0.0495 | -0.0745 | |
| | Max | -0.0010 | -0.0125 | -0.0423 | -0.0265 | -0.0260 | -0.0201 | |
| | Average | -0.0191 | -0.0383 | -0.0548 | -0.0316 | -0.0401 | -0.0503 | |
| UnBiased | 14 | -0.00416 | -0.03912 | -0.02099 | -0.06274 | -0.01854 | -0.05746 | |
| | 15 | -0.04147 | -0.00926 | -0.03059 | -0.05634 | -0.02707 | -0.04253 | |
| | 33 | -0.00735 | -0.06897 | -0.06684 | -0.02969 | -0.02067 | -0.04999 | |
| | 34 | -0.04894 | -0.06044 | -0.05831 | -0.05848 | -0.04839 | -0.06066 | |
| | Min | -0.0489 | -0.0690 | -0.0668 | -0.0627 | -0.0484 | -0.0607 | |
| | Max | -0.0042 | -0.0093 | -0.0210 | -0.0297 | -0.0185 | -0.0425 | |
| | Average | -0.0255 | -0.0444 | -0.0442 | -0.0518 | -0.0287 | -0.0527 | |



| T# 29 | | 5V VGA Up midrange GAIN V | | | | | | dB |
|----------|---------|---------------------------|----------|----------|----------|----------|----------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 20.47918 | 20.49461 | 20.51233 | 20.47992 | 20.4603 | 20.50094 | >18.5 |
| | 40 | 20.06386 | 20.04795 | 20.07417 | 20.02903 | 20.02331 | 20.03549 | <22.5 |
| Biased | 16 | 20.08727 | 20.06461 | 20.08146 | 20.07703 | 20.10481 | 20.1176 | |
| | 17 | 20.45758 | 20.45329 | 20.46417 | 20.45871 | 20.48025 | 20.45974 | |
| | 35 | 20.12884 | 20.15989 | 20.146 | 20.26227 | 20.1296 | 20.13059 | |
| | 36 | 20.28662 | 20.29993 | 20.29903 | 20.12002 | 20.27326 | 20.26728 | |
| | Min | 20.0873 | 20.0646 | 20.0815 | 20.0770 | 20.1048 | 20.1176 | |
| | Max | 20.4576 | 20.4533 | 20.4642 | 20.4587 | 20.4803 | 20.4597 | |
| | Average | 20.2401 | 20.2444 | 20.2477 | 20.2295 | 20.2470 | 20.2438 | |
| UnBiased | 14 | 19.96293 | 19.9839 | 19.99479 | 19.9619 | 20.00957 | 20.01436 | |
| | 15 | 20.022 | 20.06225 | 20.07535 | 20.0487 | 20.06871 | 20.06659 | |
| | 33 | 20.24633 | 20.24261 | 20.27887 | 20.09387 | 20.27032 | 20.11917 | |
| | 34 | 20.07619 | 20.09193 | 20.09861 | 20.13361 | 20.12092 | 20.1126 | |
| | Min | 19.9629 | 19.9839 | 19.9948 | 19.9619 | 20.0096 | 20.0144 | |
| | Max | 20.2463 | 20.2426 | 20.2789 | 20.1336 | 20.2703 | 20.1192 | |
| | Average | 20.0769 | 20.0952 | 20.1119 | 20.0595 | 20.1174 | 20.0782 | |



| T# 30 | | 5V VGA Down midrange Gain | | | | | | dB |
|----------|---------|---------------------------|----------|----------|----------|----------|----------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 21.22747 | 21.23408 | 21.23229 | 21.23155 | 21.23043 | 21.19341 | >19.5 |
| | 40 | 21.29316 | 21.29721 | 21.30628 | 21.31459 | 21.30067 | 21.25917 | <23 |
| Biased | 16 | 21.33562 | 21.31968 | 21.31147 | 21.29465 | 21.29496 | 21.21007 | |
| | 17 | 21.20331 | 21.18951 | 21.17018 | 21.14577 | 21.13216 | 21.07936 | |
| | 35 | 21.17423 | 21.16943 | 21.176 | 21.37518 | 21.13025 | 21.07685 | |
| | 36 | 21.39769 | 21.39853 | 21.39441 | 21.46188 | 21.36968 | 21.32671 | |
| | Min | 21.1742 | 21.1694 | 21.1702 | 21.1458 | 21.1303 | 21.0769 | |
| | Max | 21.3977 | 21.3985 | 21.3944 | 21.4619 | 21.3697 | 21.3267 | |
| | Average | 21.2777 | 21.2693 | 21.2629 | 21.3194 | 21.2318 | 21.1732 | |
| UnBiased | 14 | 21.4061 | 21.42169 | 21.41673 | 21.39584 | 21.40237 | 21.32972 | |
| | 15 | 21.34035 | 21.3582 | 21.34439 | 21.35741 | 21.37586 | 21.30308 | |
| | 33 | 21.1545 | 21.17259 | 21.16657 | 21.15518 | 21.15796 | 21.0878 | |
| | 34 | 21.17557 | 21.17057 | 21.18149 | 21.12283 | 21.14722 | 21.08951 | |
| | Min | 21.1545 | 21.1706 | 21.1666 | 21.1228 | 21.1472 | 21.0878 | |
| | Max | 21.4061 | 21.4217 | 21.4167 | 21.3958 | 21.4024 | 21.3297 | |
| | Average | 21.2691 | 21.2808 | 21.2773 | 21.2578 | 21.2709 | 21.2025 | |



| T# 31 | | 5V AGC midrange VOUT Pwr | | | | | | dBm |
|----------|---------|--------------------------|---------|---------|---------|---------|---------|-------|
| SN | | Initial | 15K | 30K | 50K | 75K | 100K | Limit |
| Control | 18 | 3.91106 | 3.91775 | 3.94967 | 3.95119 | 3.93936 | 3.92245 | >3 |
| | 40 | 4.14175 | 4.12063 | 4.17895 | 4.2016 | 4.18219 | 4.16903 | <6 |
| Biased | 16 | 3.849 | 3.81028 | 3.86422 | 3.87344 | 3.16544 | 3.27318 | |
| | 17 | 3.80787 | 3.78379 | 3.83194 | 3.81673 | 3.80739 | 3.7596 | |
| | 35 | 3.88235 | 3.77161 | 3.905 | 3.81211 | 3.86283 | 3.84932 | |
| | 36 | 3.78702 | 3.66548 | 3.79829 | 4.10852 | 3.76679 | 3.735 | |
| | Min | 3.7870 | 3.6655 | 3.7983 | 3.8121 | 3.1654 | 3.2732 | |
| | Max | 3.8824 | 3.8103 | 3.9051 | 4.1085 | 3.8628 | 3.8493 | |
| | Average | 3.8316 | 3.7578 | 3.8499 | 3.9027 | 3.6506 | 3.6543 | |
| UnBiased | 14 | 3.82317 | 3.75466 | 3.87654 | 3.88134 | 2.85311 | 3.10831 | |
| | 15 | 3.65479 | 3.61292 | 3.73027 | 3.7219 | 2.92155 | 3.19447 | |
| | 33 | 3.62169 | 3.54572 | 3.64747 | 3.76294 | 3.62518 | 3.71585 | |
| | 34 | 3.74132 | 3.6858 | 3.78111 | 3.90326 | 3.68458 | 3.70341 | |
| | Min | 3.6217 | 3.5457 | 3.6475 | 3.7219 | 2.8531 | 3.1083 | |
| | Max | 3.8232 | 3.7547 | 3.8765 | 3.9033 | 3.6846 | 3.7159 | |
| | Average | 3.7102 | 3.6498 | 3.7588 | 3.8174 | 3.2711 | 3.4305 | |

