

HIGH DOSE RADIATION TEST REPORT ADL8141

December 2023

Generic

Radiation Test Report

| | |
|---------------|-------------------------|
| Product: | ADL8141 |
| Gamma: | 0, 30k, 50k, 100k |
| Gamma Source: | Co60/TM1019 Condition A |
| Dose Rate: | 81 Rad(Si)/s |
| Facilities: | VPT RAD |
| Tested: | 12/6/23 |

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Warning:

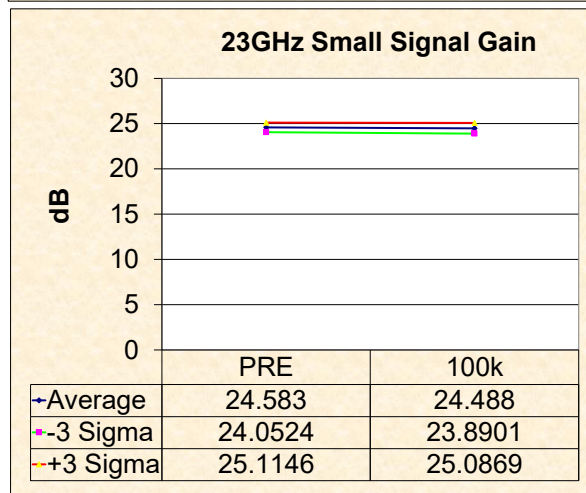
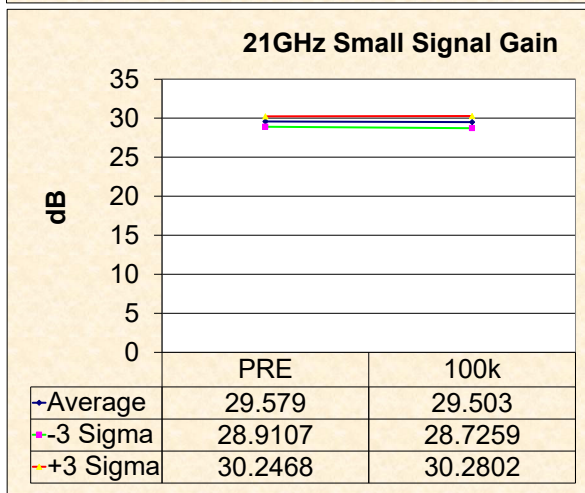
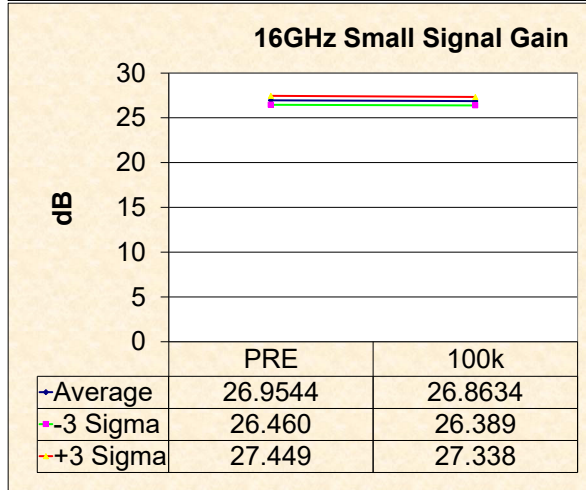
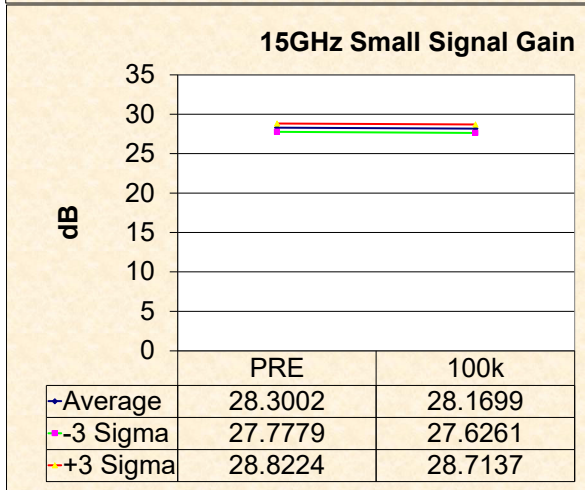
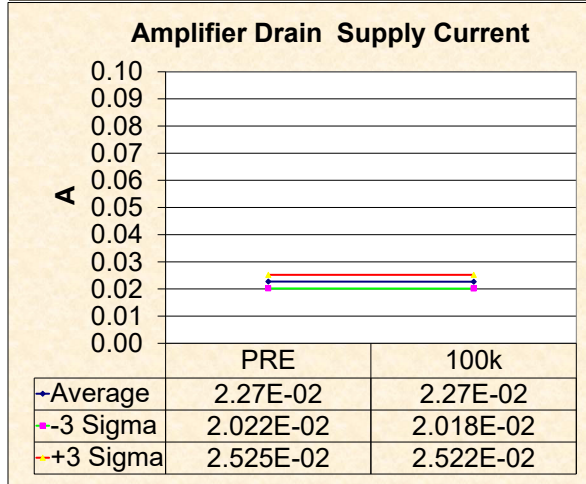
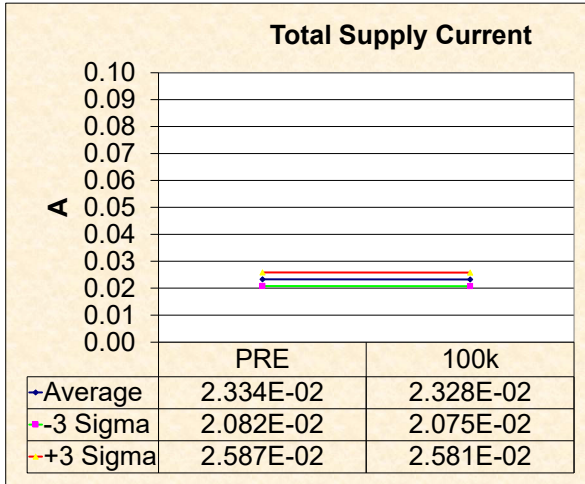
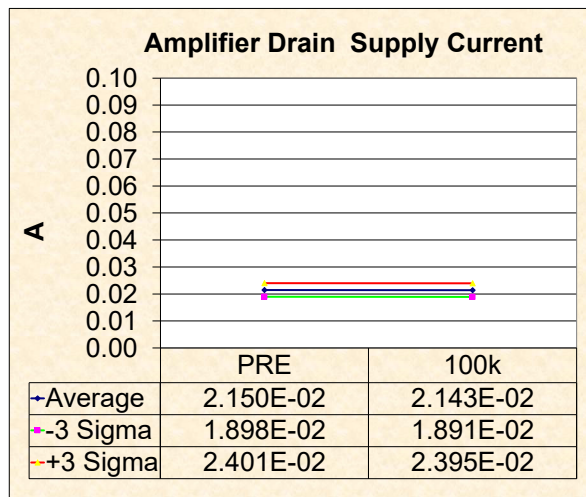
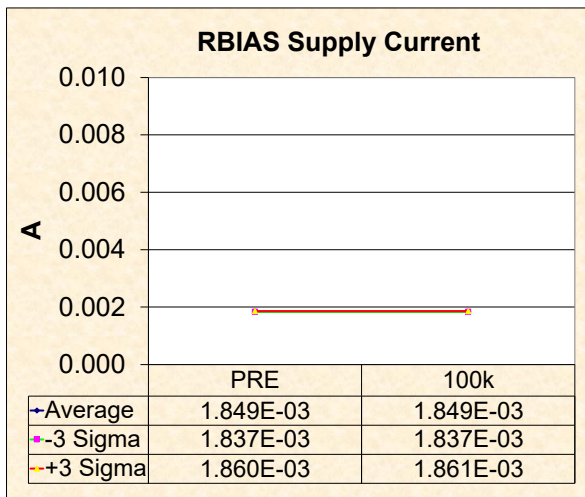
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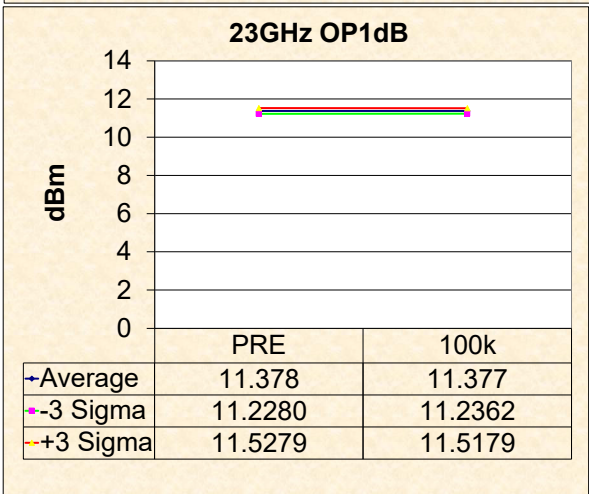
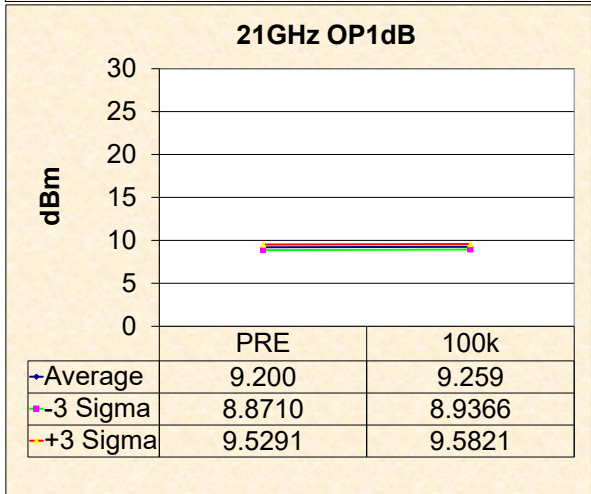
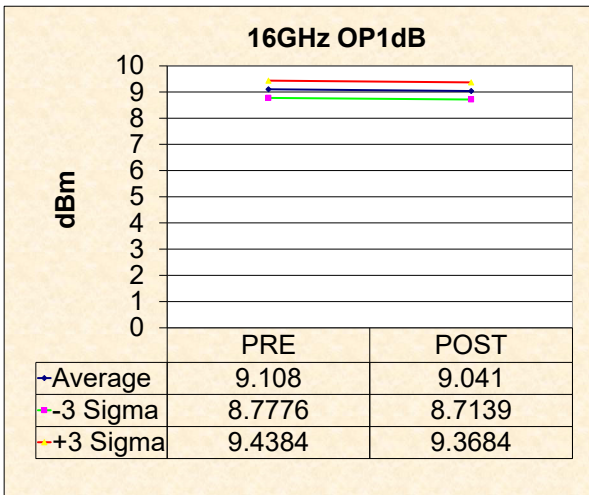
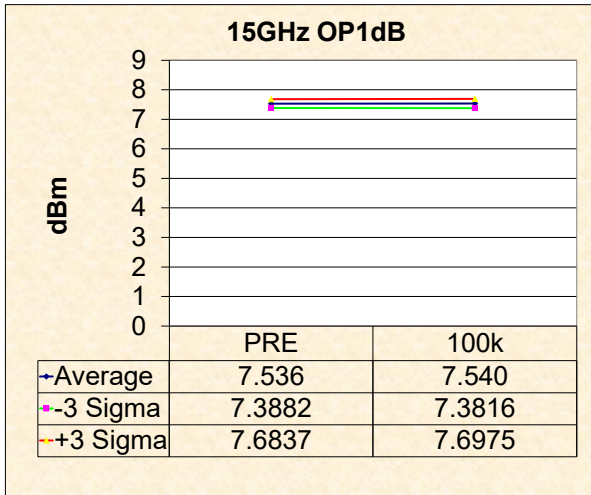
| | SN | RBIAS Supply Current (A) | | Amplifier Drain Supply Current (A) | | Total Supply Current (A) | |
|----------------|-----------|--------------------------|-----------|------------------------------------|------------|--------------------------|------------|
| | | PRE | 100k | PRE | 100k | PRE | 100k |
| CTRL | W | 1.833E-03 | 1.833E-03 | 2.431E-02 | 2.434E-02 | 2.614E-02 | 2.617E-02 |
| | X | 1.857E-03 | 1.857E-03 | 2.226E-02 | 2.213E-02 | 2.412E-02 | 2.398E-02 |
| 100K | B | 1.855E-03 | 1.855E-03 | 2.331E-02 | 2.325E-02 | 2.516E-02 | 2.511E-02 |
| | C | 1.858E-03 | 1.858E-03 | 2.381E-02 | 2.383E-02 | 2.567E-02 | 2.568E-02 |
| | D | 1.854E-03 | 1.855E-03 | 2.362E-02 | 2.356E-02 | 2.548E-02 | 2.542E-02 |
| | E | 1.862E-03 | 1.862E-03 | 2.360E-02 | 2.357E-02 | 2.546E-02 | 2.543E-02 |
| | F | 1.858E-03 | 1.858E-03 | 2.266E-02 | 2.264E-02 | 2.452E-02 | 2.450E-02 |
| | G | 1.852E-03 | 1.853E-03 | 2.232E-02 | 2.230E-02 | 2.417E-02 | 2.415E-02 |
| | H | 1.851E-03 | 1.851E-03 | 2.267E-02 | 2.259E-02 | 2.452E-02 | 2.444E-02 |
| | I | 1.855E-03 | 1.855E-03 | 2.158E-02 | 2.157E-02 | 2.344E-02 | 2.342E-02 |
| | J | 1.852E-03 | 1.852E-03 | 2.224E-02 | 2.223E-02 | 2.409E-02 | 2.409E-02 |
| | K | 1.849E-03 | 1.849E-03 | 2.150E-02 | 2.143E-02 | 2.334E-02 | 2.328E-02 |
| | Min | 1.849E-03 | 1.849E-03 | 2.150E-02 | 2.143E-02 | 2.334E-02 | 2.328E-02 |
| | Max | 1.849E-03 | 1.849E-03 | 2.150E-02 | 2.143E-02 | 2.334E-02 | 2.328E-02 |
| | Mean | 1.849E-03 | 1.849E-03 | 2.150E-02 | 2.143E-02 | 2.334E-02 | 2.328E-02 |
| | Std. Dev | 3.924E-06 | 3.900E-06 | 8.3823E-04 | 8.4037E-04 | 8.4080E-04 | 8.4297E-04 |
| Mean - 3 Sigma | 1.837E-03 | 1.837E-03 | 1.898E-02 | 1.891E-02 | 2.082E-02 | 2.075E-02 | |
| Mean + 3 Sigma | 1.860E-03 | 1.861E-03 | 2.401E-02 | 2.395E-02 | 2.587E-02 | 2.581E-02 | |

| | SN | Amplifier Drain Supply Current (A) | | 15GHz Small Signal Gain (dB) | | 16GHz Small Signal Gain (dB) | |
|----------------|-----------|------------------------------------|------------|------------------------------|---------|------------------------------|---------|
| | | PRE | 100k | PRE | 100k | PRE | 100k |
| CTRL | W | 2.43E-02 | 2.43E-02 | 28.8752 | 28.7376 | 27.4443 | 27.3422 |
| | X | 2.23E-02 | 2.21E-02 | 28.2850 | 28.1539 | 26.9339 | 26.8091 |
| 100k | B | 2.33E-02 | 2.32E-02 | 28.2495 | 28.0937 | 26.8921 | 26.7997 |
| | C | 2.38E-02 | 2.38E-02 | 28.3697 | 28.2735 | 27.0439 | 26.9716 |
| | D | 2.36E-02 | 2.36E-02 | 28.2981 | 28.1802 | 26.9527 | 26.8457 |
| | E | 2.36E-02 | 2.36E-02 | 28.2832 | 28.1651 | 27.0251 | 26.9553 |
| | F | 2.27E-02 | 2.26E-02 | 28.1310 | 28.0240 | 26.7722 | 26.7198 |
| | G | 2.23E-02 | 2.23E-02 | 28.5439 | 28.4410 | 27.1346 | 27.0521 |
| | H | 2.27E-02 | 2.26E-02 | 28.5850 | 28.4470 | 27.2132 | 27.0777 |
| | I | 2.16E-02 | 2.16E-02 | 27.9927 | 27.8588 | 26.6480 | 26.5552 |
| | J | 2.22E-02 | 2.22E-02 | 28.2773 | 28.1460 | 26.9223 | 26.8479 |
| | K | 2.15E-02 | 2.14E-02 | 28.2714 | 28.0697 | 26.9403 | 26.8087 |
| | Min | 2.15E-02 | 2.14E-02 | 27.9927 | 27.8588 | 26.6480 | 26.5552 |
| | Max | 2.38E-02 | 2.38E-02 | 28.5850 | 28.4470 | 27.2132 | 27.0777 |
| | Mean | 2.27E-02 | 2.27E-02 | 28.3002 | 28.1699 | 26.9544 | 26.8634 |
| | Std. Dev | 8.3823E-04 | 8.4037E-04 | 0.1741 | 0.1813 | 0.1649 | 0.1581 |
| Mean - 3 Sigma | 2.022E-02 | 2.018E-02 | 27.7779 | 27.6261 | 26.460 | 26.389 | |
| Mean + 3 Sigma | 2.525E-02 | 2.522E-02 | 28.8224 | 28.7137 | 27.449 | 27.338 | |

| | SN | 21GHz Small Signal Gain (dB) | | 23GHz Small Signal Gain (dB) | | 15GHz OP1dB (dBm) | |
|----------------|----------------|------------------------------|---------|------------------------------|---------|-------------------|--------|
| | | PRE | 100k | PRE | 100k | PRE | 100k |
| CTRL | W | 30.2459 | 30.1406 | 24.9901 | 24.7885 | 7.6793 | 7.6865 |
| | X | 29.6361 | 29.6055 | 24.5418 | 24.3959 | 7.5896 | 7.5942 |
| 100k | B | 29.6045 | 29.5216 | 24.6036 | 24.4637 | 7.5647 | 7.5490 |
| | C | 29.7859 | 29.7932 | 24.7666 | 24.7270 | 7.5502 | 7.5435 |
| | D | 29.5768 | 29.6039 | 24.6278 | 24.6062 | 7.5399 | 7.5471 |
| | E | 29.4800 | 29.4217 | 24.5823 | 24.4865 | 7.4540 | 7.4622 |
| | F | 29.4070 | 29.3224 | 24.4264 | 24.3451 | 7.5697 | 7.5864 |
| | G | 29.6742 | 29.6175 | 24.5181 | 24.4637 | 7.5729 | 7.5918 |
| | H | 29.9659 | 29.8875 | 24.8589 | 24.7604 | 7.5995 | 7.6089 |
| | I | 29.1887 | 29.0511 | 24.2533 | 24.1017 | 7.4772 | 7.4852 |
| | K | 29.5256 | 29.3089 | 24.6145 | 24.4420 | 7.4953 | 7.4818 |
| | Min | 29.1887 | 29.0511 | 24.2533 | 24.1017 | 7.4540 | 7.4622 |
| | Max | 29.966 | 29.888 | 24.859 | 24.760 | 7.600 | 7.609 |
| | Mean | 29.579 | 29.503 | 24.583 | 24.488 | 7.536 | 7.540 |
| | Std. Dev | 0.2227 | 0.2590 | 0.1770 | 0.1995 | 0.0493 | 0.0526 |
| | Mean - 3 Sigma | 28.9107 | 28.7259 | 24.0524 | 23.8901 | 7.3882 | 7.3816 |
| Mean + 3 Sigma | 30.2468 | 30.2802 | 25.1146 | 25.0869 | 7.6837 | 7.6975 | |

| | | 16GHz OP1dB (dBm) | | 21GHz OP1dB (dBm) | | 23GHz OP1dB (dBm) | |
|----------------|----------------|-------------------|--------|-------------------|---------|-------------------|---------|
| SN | | PRE | POST | PRE | POST | PRE | POST |
| CTRL | W | 9.3971 | 9.3431 | 9.4773 | 9.4915 | 11.3961 | 11.3736 |
| | X | 9.1335 | 9.0433 | 9.2010 | 9.1970 | 11.4368 | 11.3995 |
| 100k | B | 9.0739 | 8.9877 | 9.2832 | 9.3274 | 11.4044 | 11.3869 |
| | C | 9.1601 | 9.1072 | 9.2879 | 9.3013 | 11.3433 | 11.3437 |
| | D | 9.0861 | 9.0102 | 9.2532 | 9.2965 | 11.3491 | 11.3568 |
| | E | 9.1317 | 9.0755 | 9.3651 | 9.4294 | 11.2993 | 11.3137 |
| | F | 8.9916 | 8.9511 | 9.1907 | 9.3147 | 11.3870 | 11.4030 |
| | G | 9.2206 | 9.1622 | 9.1166 | 9.2371 | 11.4512 | 11.4700 |
| | H | 9.2838 | 9.1958 | 9.1416 | 9.1920 | 11.4473 | 11.4147 |
| | I | 8.9211 | 8.8433 | 9.1608 | 9.1802 | 11.3688 | 11.3475 |
| | K | 9.1032 | 9.0373 | 9.0012 | 9.0555 | 11.3510 | 11.3572 |
| | Min | 8.921 | 8.843 | 9.001 | 9.056 | 11.299 | 11.314 |
| | Max | 9.284 | 9.196 | 9.365 | 9.429 | 11.451 | 11.470 |
| | Mean | 9.108 | 9.041 | 9.200 | 9.259 | 11.378 | 11.377 |
| | Std. Dev | 0.1101 | 0.1091 | 0.1097 | 0.1076 | 0.0500 | 0.0470 |
| | Mean - 3 Sigma | 8.7776 | 8.7139 | 8.8710 | 8.9366 | 11.2280 | 11.2362 |
| Mean + 3 Sigma | 9.4384 | 9.3684 | 9.5291 | 9.5821 | 11.5279 | 11.5179 | |



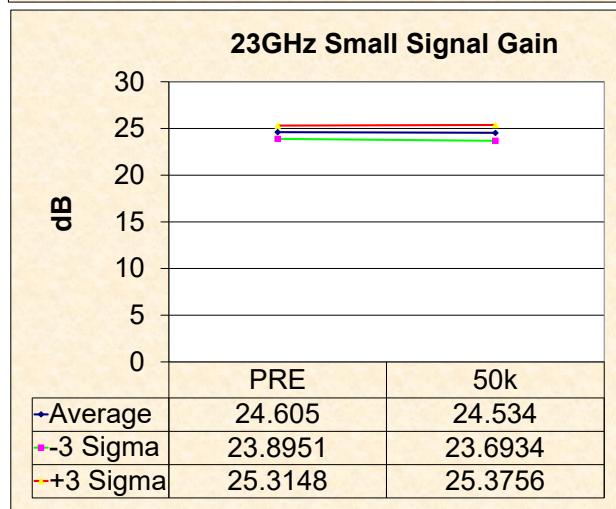
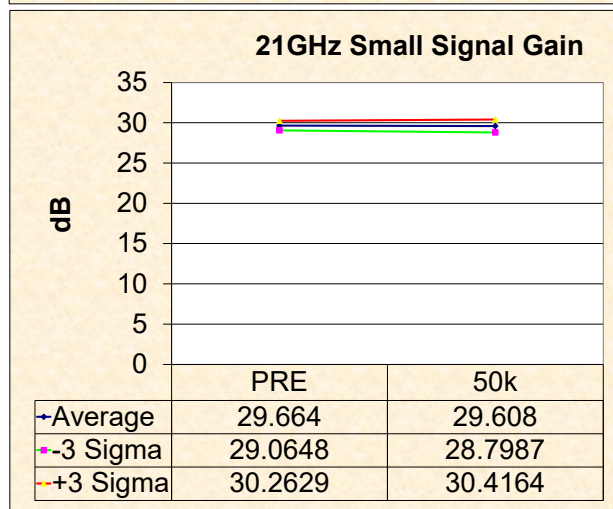
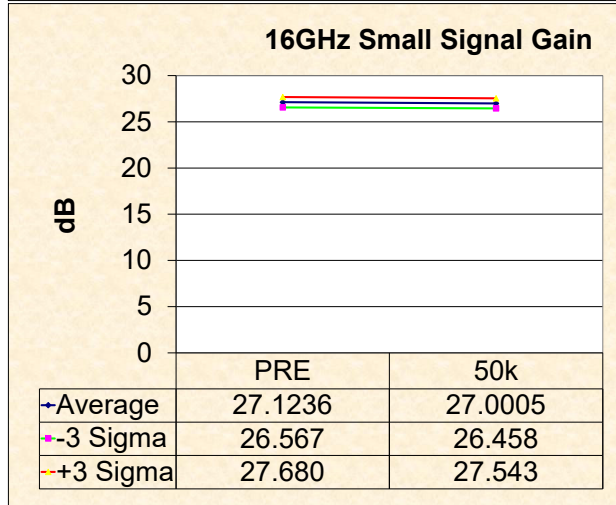
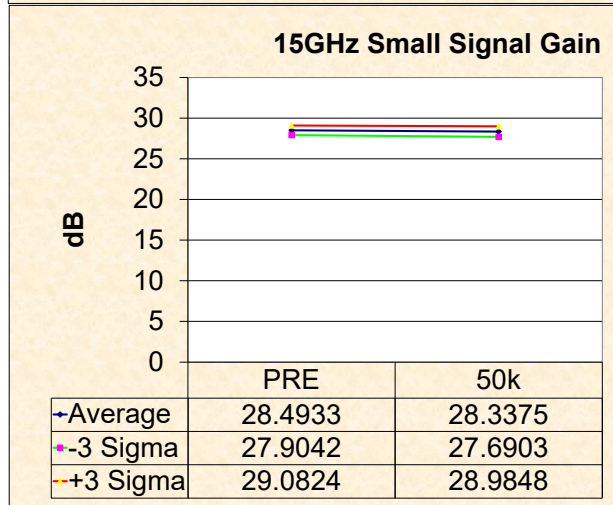
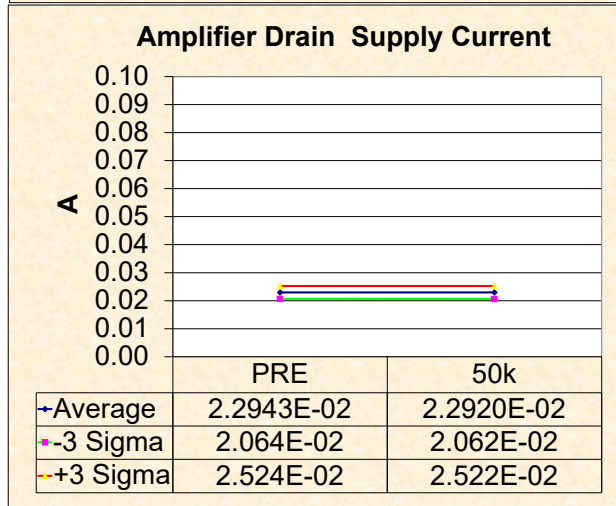
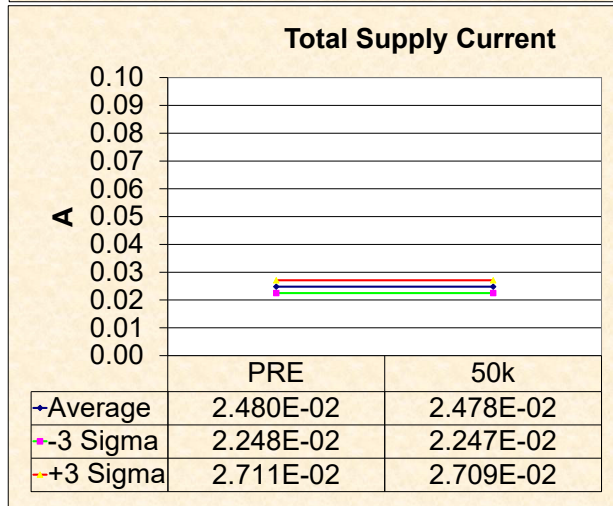
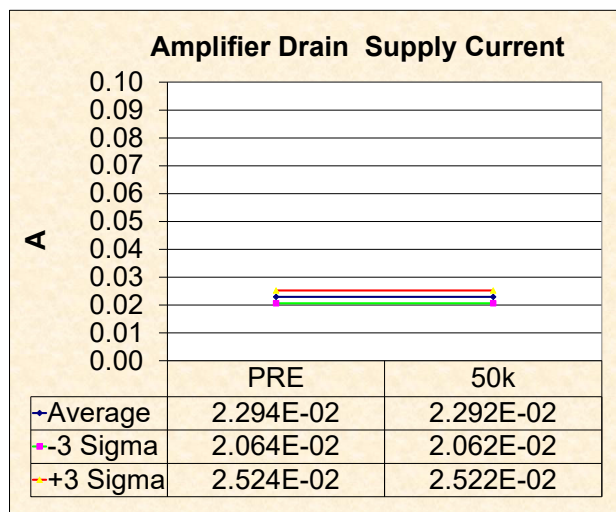
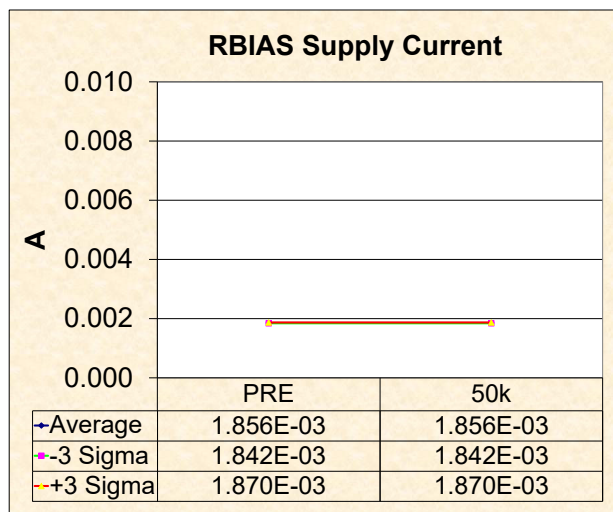


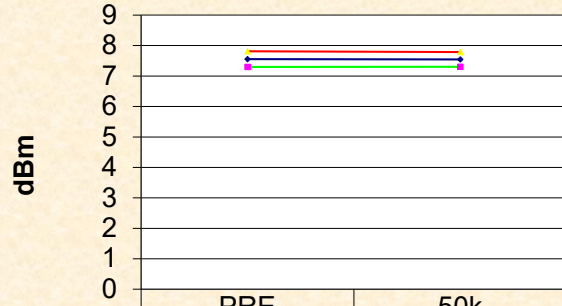
| | | RBIAS Supply Current (A) | | Amplifier Drain Supply Current (A) | | Total Supply Current (A) | |
|----------------|----------------|--------------------------|-----------|------------------------------------|-----------|--------------------------|-----------|
| SN | | PRE | 50k | PRE | 50k | PRE | 50k |
| CTRL | W | 1.833E-03 | 1.833E-03 | 2.431E-02 | 2.434E-02 | 2.614E-02 | 2.617E-02 |
| | X | 1.857E-03 | 1.857E-03 | 2.226E-02 | 2.213E-02 | 2.412E-02 | 2.398E-02 |
| 50K | 6 | 1.855E-03 | 1.856E-03 | 2.262E-02 | 2.261E-02 | 2.448E-02 | 2.446E-02 |
| | 7 | 1.852E-03 | 1.853E-03 | 2.228E-02 | 2.228E-02 | 2.414E-02 | 2.413E-02 |
| | 8 | 1.860E-03 | 1.860E-03 | 2.350E-02 | 2.347E-02 | 2.536E-02 | 2.533E-02 |
| | 9 | 1.850E-03 | 1.851E-03 | 2.231E-02 | 2.227E-02 | 2.416E-02 | 2.412E-02 |
| | A | 1.861E-03 | 1.862E-03 | 2.400E-02 | 2.398E-02 | 2.586E-02 | 2.584E-02 |
| | Min | 1.850E-03 | 1.851E-03 | 2.228E-02 | 2.227E-02 | 2.414E-02 | 2.412E-02 |
| | Max | 1.861E-03 | 1.862E-03 | 2.400E-02 | 2.398E-02 | 2.586E-02 | 2.584E-02 |
| | Mean | 1.856E-03 | 1.856E-03 | 2.294E-02 | 2.292E-02 | 2.480E-02 | 2.478E-02 |
| | Std. Dev | 4.656E-06 | 4.685E-06 | 7.673E-04 | 7.654E-04 | 7.718E-04 | 7.699E-04 |
| | Mean - 3 Sigma | 1.842E-03 | 1.842E-03 | 2.064E-02 | 2.062E-02 | 2.248E-02 | 2.247E-02 |
| Mean + 3 Sigma | 1.870E-03 | 1.870E-03 | 2.524E-02 | 2.522E-02 | 2.711E-02 | 2.709E-02 | |

| | | Amplifier Drain Supply Current (A) | | 15GHz Small Signal Gain (dB) | | 16GHz Small Signal Gain (dB) | |
|----------------|----------------|------------------------------------|------------|------------------------------|---------|------------------------------|---------|
| SN | | PRE | 50k | PRE | 50k | PRE | 50k |
| CTRL | W | 2.4305E-02 | 2.4337E-02 | 28.8752 | 28.7376 | 27.4443 | 27.3422 |
| | X | 2.2262E-02 | 2.2126E-02 | 28.2850 | 28.1539 | 26.9339 | 26.8091 |
| 50k | 6 | 2.2622E-02 | 2.2606E-02 | 28.2006 | 28.0011 | 26.8782 | 26.7336 |
| | 7 | 2.2284E-02 | 2.2280E-02 | 28.4933 | 28.2932 | 27.0479 | 26.9201 |
| | 8 | 2.3498E-02 | 2.3466E-02 | 28.7348 | 28.5542 | 27.3854 | 27.2088 |
| | 9 | 2.2312E-02 | 2.2272E-02 | 28.5859 | 28.4926 | 27.1276 | 27.0592 |
| | A | 2.3997E-02 | 2.3976E-02 | 28.4522 | 28.3466 | 27.1790 | 27.0809 |
| | Min | 2.2284E-02 | 2.2272E-02 | 28.2006 | 28.0011 | 26.8782 | 26.7336 |
| | Max | 2.3997E-02 | 2.3976E-02 | 28.7348 | 28.5542 | 27.3854 | 27.2088 |
| | Mean | 2.2943E-02 | 2.2920E-02 | 28.4933 | 28.3375 | 27.1236 | 27.0005 |
| | Std. Dev | 7.673E-04 | 7.654E-04 | 0.1964 | 0.2157 | 0.185 | 0.181 |
| | Mean - 3 Sigma | 2.064E-02 | 2.062E-02 | 27.9042 | 27.6903 | 26.567 | 26.458 |
| Mean + 3 Sigma | 2.524E-02 | 2.522E-02 | 29.0824 | 28.9848 | 27.680 | 27.543 | |

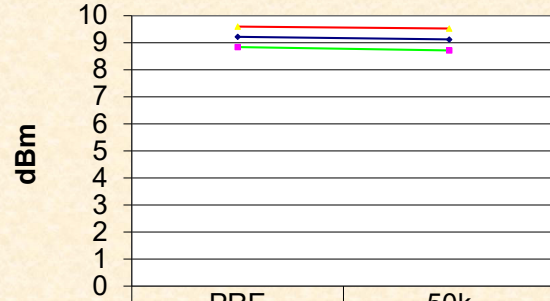
| | | 21GHz Small Signal Gain (dB) | | 23GHz Small Signal Gain (dB) | | 15GHz OP1dB (dBm) | |
|----------------|----------------|------------------------------|---------|------------------------------|---------|-------------------|--------|
| SN | | PRE | 50k | PRE | 50k | PRE | 50k |
| CTRL | W | 30.2459 | 30.1406 | 24.9901 | 24.7885 | 7.6793 | 7.6865 |
| | X | 29.6361 | 29.6055 | 24.5418 | 24.3959 | 7.5896 | 7.5942 |
| 50k | 6 | 29.4019 | 29.2479 | 24.4389 | 24.2986 | 7.4806 | 7.4641 |
| | 7 | 29.6077 | 29.4537 | 24.4115 | 24.2583 | 7.6302 | 7.5899 |
| | 8 | 29.9596 | 29.9562 | 24.8718 | 24.8305 | 7.5767 | 7.6050 |
| | 9 | 29.6787 | 29.6542 | 24.4470 | 24.4535 | 7.6353 | 7.6045 |
| | A | 29.6714 | 29.7258 | 24.8555 | 24.8316 | 7.4477 | 7.4449 |
| | Min | 29.4019 | 29.2479 | 24.4115 | 24.2583 | 7.4477 | 7.4449 |
| | Max | 29.960 | 29.956 | 24.872 | 24.832 | 7.635 | 7.605 |
| | Mean | 29.664 | 29.608 | 24.605 | 24.534 | 7.554 | 7.542 |
| | Std. Dev | 0.1997 | 0.2696 | 0.2366 | 0.2804 | 0.0860 | 0.0801 |
| | Mean - 3 Sigma | 29.0648 | 28.7987 | 23.8951 | 23.6934 | 7.2960 | 7.3014 |
| Mean + 3 Sigma | 30.2629 | 30.4164 | 25.3148 | 25.3756 | 7.8122 | 7.7820 | |

| | | 16GHz OP1dB (dBm) | | 21GHz OP1dB (dBm) | | 23GHz OP1dB (dBm) | |
|-------------|-----------------------|-------------------|---------------|-------------------|---------------|-------------------|----------------|
| SN | | PRE | 50k | PRE | 50k | PRE | 50k |
| CTRL | W | 9.3971 | 9.3431 | 9.4773 | 9.4915 | 11.3961 | 11.3736 |
| | X | 9.1335 | 9.0433 | 9.2010 | 9.1970 | 11.4368 | 11.3995 |
| | 6 | 9.0211 | 8.9033 | 9.2565 | 9.2978 | 11.3567 | 11.3622 |
| 50k | 7 | 9.2038 | 9.0982 | 9.2106 | 9.2995 | 11.4876 | 11.4423 |
| | 8 | 9.3740 | 9.2665 | 9.3839 | 9.3373 | 11.4434 | 11.4292 |
| | 9 | 9.2371 | 9.1661 | 9.2455 | 9.2812 | 11.4784 | 11.4720 |
| | A | 9.2336 | 9.1603 | 9.2157 | 9.1801 | 11.2900 | 11.2967 |
| | Min | 9.021 | 8.903 | 9.211 | 9.180 | 11.290 | 11.297 |
| | Max | 9.374 | 9.266 | 9.384 | 9.337 | 11.488 | 11.472 |
| | Mean | 9.214 | 9.119 | 9.262 | 9.279 | 11.411 | 11.400 |
| | Std. Dev | 0.1263 | 0.1348 | 0.0706 | 0.0591 | 0.0852 | 0.0706 |
| | Mean - 3 Sigma | 8.8349 | 8.7146 | 9.0507 | 9.1020 | 11.1556 | 11.1887 |
| | Mean + 3 Sigma | 9.5929 | 9.5232 | 9.4742 | 9.4564 | 11.6668 | 11.6123 |



15GHz OP1dB

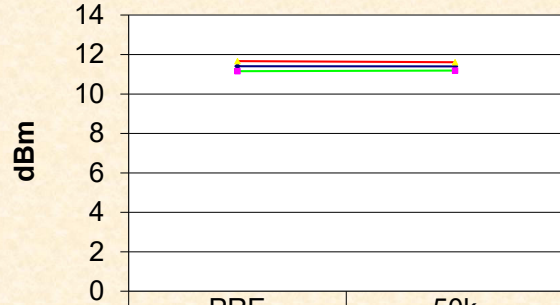
| | PRE | 50k |
|----------|--------|--------|
| +Average | 7.554 | 7.542 |
| +3 Sigma | 7.2960 | 7.3014 |
| -3 Sigma | 7.8122 | 7.7820 |

16GHz OP1dB

| | PRE | 50k |
|----------|--------|--------|
| +Average | 9.214 | 9.119 |
| +3 Sigma | 8.8349 | 8.7146 |
| -3 Sigma | 9.5929 | 9.5232 |

21GHz OP1dB

| | PRE | 50k |
|----------|--------|--------|
| +Average | 9.262 | 9.279 |
| +3 Sigma | 9.0507 | 9.1020 |
| -3 Sigma | 9.4742 | 9.4564 |

23GHz OP1dB

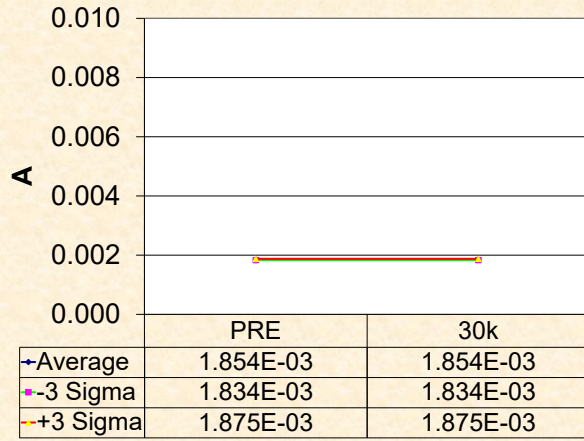
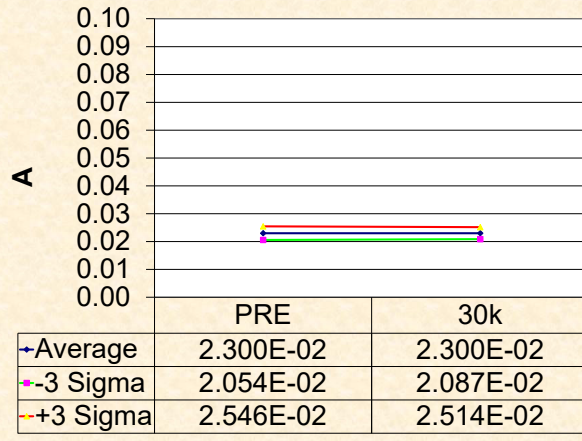
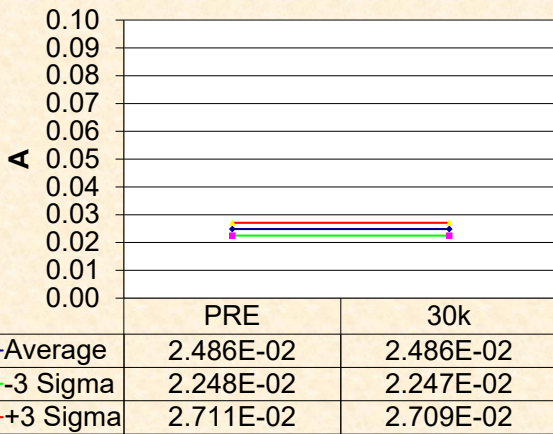
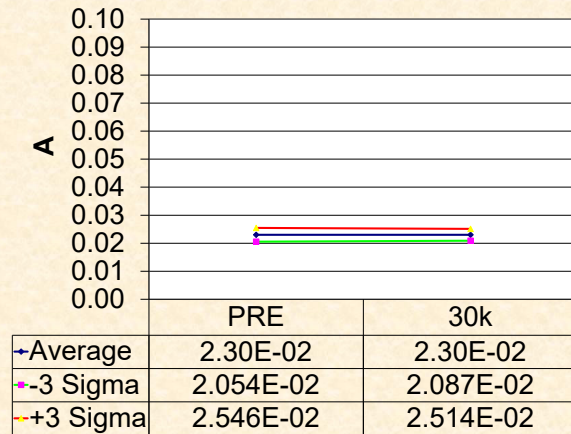
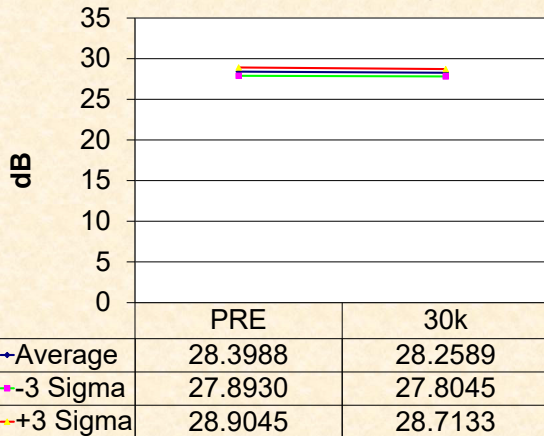
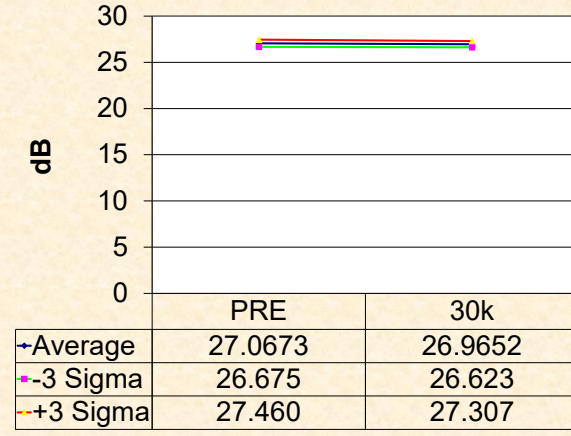
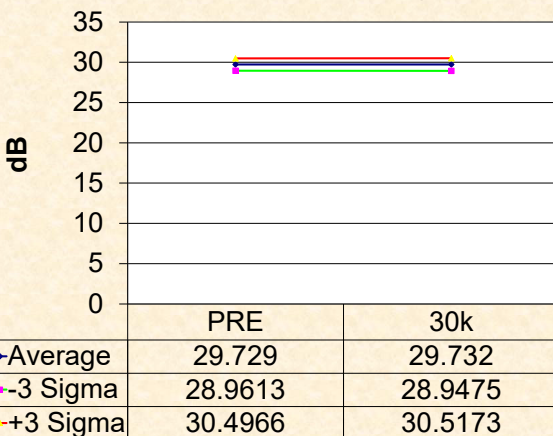
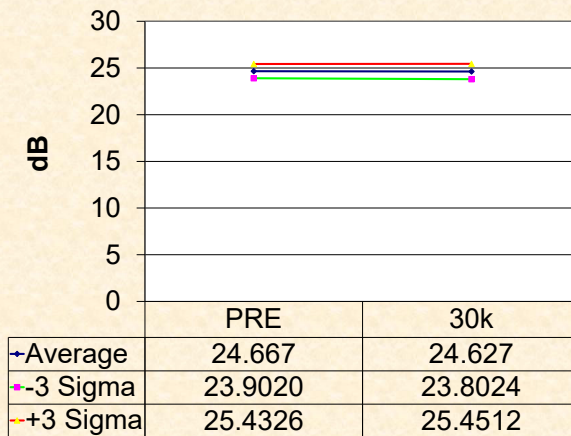
| | PRE | 50k |
|----------|---------|---------|
| +Average | 11.411 | 11.400 |
| +3 Sigma | 11.1556 | 11.1887 |
| -3 Sigma | 11.6668 | 11.6123 |

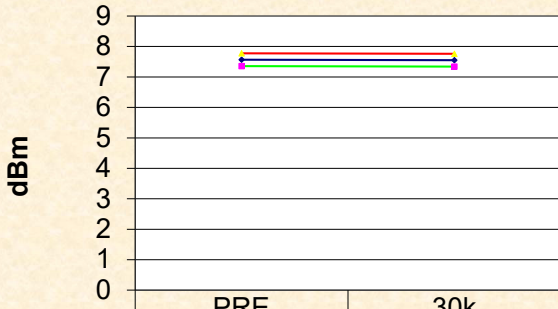
| | | RBIAS Supply Current (A) | | Amplifier Drain Supply Current (A) | | Total Supply Current (A) | |
|------|----------------|--------------------------|-----------|------------------------------------|-----------|--------------------------|-----------|
| SN | | PRE | 30k | PRE | 30k | PRE | 30k |
| CTRL | W | 1.833E-03 | 1.833E-03 | 2.431E-02 | 2.434E-02 | 2.614E-02 | 2.617E-02 |
| | X | 1.857E-03 | 1.857E-03 | 2.226E-02 | 2.213E-02 | 2.412E-02 | 2.398E-02 |
| 30K | 1 | 1.863E-03 | 1.864E-03 | 2.303E-02 | 2.303E-02 | 2.489E-02 | 2.489E-02 |
| | 2 | 1.848E-03 | 1.849E-03 | 2.427E-02 | 2.409E-02 | 2.611E-02 | 2.594E-02 |
| | 3 | 1.859E-03 | 1.859E-03 | 2.214E-02 | 2.223E-02 | 2.400E-02 | 2.409E-02 |
| | 4 | 1.850E-03 | 1.850E-03 | 2.314E-02 | 2.315E-02 | 2.499E-02 | 2.500E-02 |
| | 5 | 1.851E-03 | 1.850E-03 | 2.243E-02 | 2.253E-02 | 2.428E-02 | 2.438E-02 |
| | Min | 1.848E-03 | 1.849E-03 | 2.214E-02 | 2.223E-02 | 2.400E-02 | 2.409E-02 |
| | Max | 1.863E-03 | 1.864E-03 | 2.427E-02 | 2.409E-02 | 2.611E-02 | 2.594E-02 |
| | Mean | 1.854E-03 | 1.854E-03 | 2.300E-02 | 2.300E-02 | 2.486E-02 | 2.486E-02 |
| | Std. Dev | 6.778E-06 | 6.776E-06 | 8.196E-04 | 7.119E-04 | 8.163E-04 | 7.089E-04 |
| | Mean - 3 Sigma | 1.834E-03 | 1.834E-03 | 2.054E-02 | 2.087E-02 | 2.241E-02 | 2.273E-02 |
| | Mean + 3 Sigma | 1.875E-03 | 1.875E-03 | 2.546E-02 | 2.514E-02 | 2.731E-02 | 2.698E-02 |

| | | Amplifier Drain Supply Current (A) | | 15GHz Small Signal Gain (dB) | | 16GHz Small Signal Gain (dB) | |
|------|----------------|------------------------------------|-----------|------------------------------|---------|------------------------------|---------|
| SN | | PRE | 30k | PRE | 30k | PRE | 30k |
| CTRL | W | 2.43E-02 | 2.43E-02 | 28.8752 | 28.7376 | 27.4443 | 27.3422 |
| | X | 2.23E-02 | 2.21E-02 | 28.2850 | 28.1539 | 26.9339 | 26.8091 |
| 30k | 1 | 2.30E-02 | 2.30E-02 | 28.3066 | 28.1380 | 27.0385 | 26.8741 |
| | 2 | 2.43E-02 | 2.41E-02 | 28.6731 | 28.4996 | 27.2787 | 27.1481 |
| | 3 | 2.21E-02 | 2.22E-02 | 28.2272 | 28.1234 | 26.9196 | 26.8643 |
| | 4 | 2.31E-02 | 2.31E-02 | 28.3792 | 28.2480 | 27.0343 | 26.9740 |
| | 5 | 2.24E-02 | 2.25E-02 | 28.4078 | 28.2856 | 27.0657 | 26.9654 |
| | Min | 2.21E-02 | 2.22E-02 | 28.2272 | 28.1234 | 26.9196 | 26.8643 |
| | Max | 2.43E-02 | 2.41E-02 | 28.6731 | 28.4996 | 27.2787 | 27.1481 |
| | Mean | 2.30E-02 | 2.30E-02 | 28.3988 | 28.2589 | 27.0673 | 26.9652 |
| | Std. Dev | 8.196E-04 | 7.119E-04 | 0.1686 | 0.1515 | 0.131 | 0.114 |
| | Mean - 3 Sigma | 2.054E-02 | 2.087E-02 | 27.8930 | 27.8045 | 26.675 | 26.623 |
| | Mean + 3 Sigma | 2.546E-02 | 2.514E-02 | 28.9045 | 28.7133 | 27.460 | 27.307 |

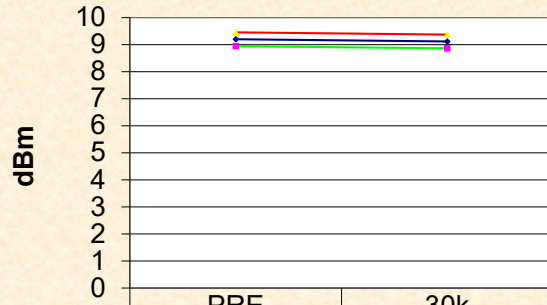
| | | 21GHz Small Signal Gain (dB) | | 23GHz Small Signal Gain (dB) | | 15GHz OP1dB (dBm) | |
|------|----------------|------------------------------|---------|------------------------------|---------|-------------------|--------|
| SN | | PRE | 30k | PRE | 30k | PRE | 30k |
| CTRL | W | 30.2459 | 30.1406 | 24.9901 | 24.7885 | 7.6793 | 7.6865 |
| | X | 29.6361 | 29.6055 | 24.5418 | 24.3959 | 7.5896 | 7.5942 |
| 30k | 1 | 29.5142 | 29.7379 | 24.6348 | 24.6608 | 7.4805 | 7.4757 |
| | 2 | 30.1128 | 30.1451 | 25.0147 | 24.9955 | 7.6373 | 7.6285 |
| | 3 | 29.4775 | 29.4227 | 24.3221 | 24.2564 | 7.5424 | 7.5193 |
| | 4 | 29.8009 | 29.7067 | 24.7797 | 24.7275 | 7.5224 | 7.4975 |
| | 5 | 29.7394 | 29.6497 | 24.5851 | 24.4939 | 7.6339 | 7.6144 |
| | Min | 29.4775 | 29.4227 | 24.3221 | 24.2564 | 7.4805 | 7.4757 |
| | Max | 30.113 | 30.145 | 25.015 | 24.995 | 7.637 | 7.628 |
| | Mean | 29.729 | 29.732 | 24.667 | 24.627 | 7.563 | 7.547 |
| | Std. Dev | 0.2559 | 0.2616 | 0.2551 | 0.2748 | 0.0697 | 0.0698 |
| | Mean - 3 Sigma | 28.9613 | 28.9475 | 23.9020 | 23.8024 | 7.3542 | 7.3377 |
| | Mean + 3 Sigma | 30.4966 | 30.5173 | 25.4326 | 25.4512 | 7.7724 | 7.7564 |

| | | 16GHz OP1dB (dBm) | | 21GHz OP1dB (dBm) | | 23GHz OP1dB (dBm) | |
|-------------|-----------------------|-------------------|---------------|-------------------|---------------|-------------------|----------------|
| SN | | PRE | 30k | PRE | 30k | PRE | 30k |
| CTRL | W | 9.3971 | 9.3431 | 9.4773 | 9.4915 | 11.3961 | 11.3736 |
| | X | 9.1335 | 9.0433 | 9.2010 | 9.1970 | 11.4368 | 11.3995 |
| 30k | 1 | 9.1556 | 9.0303 | 9.0990 | 9.1007 | 11.3834 | 11.2907 |
| | 2 | 9.3351 | 9.2442 | 9.3270 | 9.3299 | 11.4075 | 11.3639 |
| | 3 | 9.1094 | 9.0484 | 9.3281 | 9.3591 | 11.4156 | 11.3989 |
| | 4 | 9.1858 | 9.1247 | 9.1379 | 9.2172 | 11.3170 | 11.3089 |
| | 5 | 9.2160 | 9.1288 | 9.3451 | 9.4219 | 11.4522 | 11.4419 |
| | Min | 9.109 | 9.030 | 9.099 | 9.101 | 11.317 | 11.291 |
| | Max | 9.335 | 9.244 | 9.345 | 9.422 | 11.452 | 11.442 |
| | Mean | 9.200 | 9.115 | 9.247 | 9.286 | 11.395 | 11.361 |
| | Std. Dev | 0.0850 | 0.0846 | 0.1187 | 0.1273 | 0.0502 | 0.0625 |
| | Mean - 3 Sigma | 8.9454 | 8.8616 | 8.8912 | 8.9038 | 11.2446 | 11.1733 |
| | Mean + 3 Sigma | 9.4553 | 9.3689 | 9.6037 | 9.6676 | 11.5457 | 11.5485 |

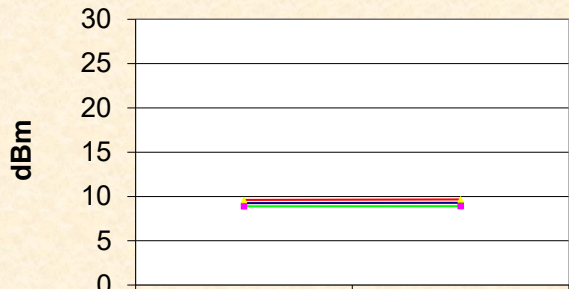
RBIAS Supply Current**Amplifier Drain Supply Current****Total Supply Current****Amplifier Drain Supply Current****15GHz Small Signal Gain****16GHz Small Signal Gain****21GHz Small Signal Gain****23GHz Small Signal Gain**

15GHz OP1dB

| | PRE | 30k |
|-----------|--------|--------|
| →Average | 7.563 | 7.547 |
| →-3 Sigma | 7.3542 | 7.3377 |
| →+3 Sigma | 7.7724 | 7.7564 |

16GHz OP1dB

| | PRE | 30k |
|-----------|--------|--------|
| →Average | 9.200 | 9.115 |
| →-3 Sigma | 8.9454 | 8.8616 |
| →+3 Sigma | 9.4553 | 9.3689 |

21GHz OP1dB

| | PRE | 30k |
|-----------|--------|--------|
| →Average | 9.247 | 9.286 |
| →-3 Sigma | 8.8912 | 8.9038 |
| →+3 Sigma | 9.6037 | 9.6676 |

23GHz OP1dB

| | PRE | 30k |
|-----------|---------|---------|
| →Average | 11.395 | 11.361 |
| →-3 Sigma | 11.2446 | 11.1733 |
| →+3 Sigma | 11.5457 | 11.5485 |