



FINAL REPORT

██████████ - ██████████ - OP470

VPTRAD
BUILDING 2 UNIT 3
101 BRICK KILN ROAD
CHELMSFORD, MA 01824

Customer: ██████████ ██████████
██████████ ██████████ ██████████
Purchase Order Number: ██████████
VPTRad Job Number: ██████████
Test Date: ██████████ - ██████████

Manufacture Part #: ANALOG DEVICES – 5962R8856501V2A/OP470
Manufacture Lot #: ██████████
Manufacture Wafer #: ██████████
Serial Numbers (Tested / Control): DUT SN 171, 175, 179, 181, 184, 187, 191, 194, 197, 208, CONT. SN 212, 215
Manufacture Date Code: ██████████
Tested Quantity: 5 DUTS PER BIAS CONDITIONS – 2 CONTROLS
Set-Up/Spare Quantity: 0
Package Type: CQCC1-N20 20-Pin Ceramic Leadless Chip

Test Standard(s) and/or Test Documents:

TESTING WAS PERFORMED USING THE PROCEDURES APPROVED BY DLA FOR OUR DLA LAND AND MARITIME-VQ COMMERCIAL LABORATORY SUITABILITY AND TESTING CONFORMS TO MIL- STD- 883 METHOD 1019 CONDITION D, EXCEPT: VPT-RAD DOES NOT KNOW IF BURN-IN WAS PERFORMED, AND THE CMOS ANNEAL WAS NOT PERFORMED

Electrical Test Conditions: TEST LEVELS: 0, 5k, 10k, 20k, 30 KRAD(SI)
Test Software / Hardware: OP470_██████████.BAS
Applicable Documents: AD1: ██████████ ██████████ ██████████
Applicable Documents: AD2: OP470, (Rev-B) 2002 Datasheet
Applicable Documents: AD3: VPTRAD QUALITY ASSURANCE PLAN QA-1

Table 1. Overview

DEVICE LOT ACCEPTANCE

Serial Number	Result (Pass / Fail)	Comments (if applicable):
171	Pass	BIASED
175	Pass	BIASED
179	Pass	BIASED
181	Pass	BIASED
184	Pass	BIASED
187	Pass	UNBIASED
191	Pass	UNBIASED
194	Pass	UNBIASED
197	Fail	UNBIASED
208	Fail	UNBIASED

1. OVERVIEW AND BACKGROUND

The purpose of this test was to characterize performance changes in the Devices Under Test (DUT) due to the effects of ionizing radiation. The scope is to evaluate how the subjected devices perform once exposed to Cobalt-60 gamma photons at various increasing levels of exposure.

2. TEST APPARATUS

- DUTS were electrically characterized and tested using the following calibrated instruments: CAL0054-JDI-ATV/PWS Tester, CAL0001-Fluke 115 DMM.
- DUTS were exposed using a JLSA 81-22 Low Dose Rate Cobalt 60 Irradiator CAL0057.
- DUTS were biased using a DC Power Supply E3647A CAL0035.
- The test software used was OP470_██████████.BAS
- All electrical test measurements made were logged and saved with each run in a separate file.

3. DUT BIAS AND ANNEALING CONDITIONS

Five DUTs were irradiated under a bias of $\pm 5VDC$. A schematic of the bias configuration is presented in Table 3. Five DUTs were irradiated unbiased.

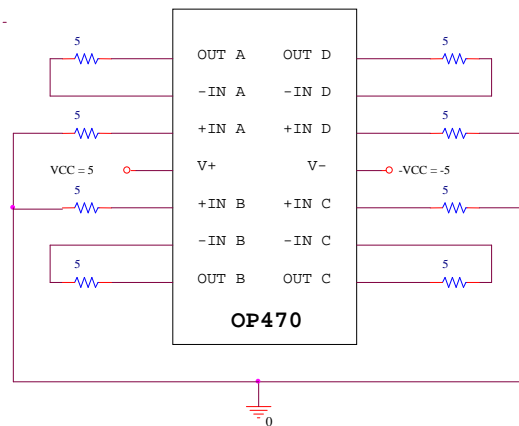


Table 3. Device Bias Conditions

See Appendix A for image of DUT.

4. TESTED PARAMETERS

List of required electrical test parameters:

Test Name	Limit LO	Limit HI
Vos (volts)	-6.00E-04	6.00E-04
Ibn (Amps)	-5.00E-07	5.00E-07
Ibi (Amps)	-5.00E-07	5.00E-07
CMRR (dB)	100	NA
PSRR (dB)	115	NA
AOL (dB)	100	NA
UGBW (Hz)	3.50E+06	NA
Voh (volts)	12	NA
Vol (volts)	NA	-12.00
Iccq (Amps)	NA	0.011

Table 4. Tested Parameters and Limits

See **APPENDIX B: MEASURED TEST PARAMETERS** for the table of parametric test results.

5. SUMMARY/CONCLUSIONS

Samples were electrically characterized after exposure to the customer specified levels. All testing was performed in conformance with the conditions and requirements prescribed by MIL-STD-883 Test Method 1019. Statistical analysis of the DUTs was performed according to MIL-HDBK-814 using KTL value appropriate for the number of devices with a confidence interval of 0.90 and a probability of survival of 0.99. Unbiased devices SN197 and SN208 failed the PSRR limit at the 30krad step. All other devices passed parametric limits at all steps.

6. DOSIMETRY:

Refer to **APPENDIX D: Exposure Report**, for actual exposure levels.

7. LIST OF APPENDICIES

APPENDIX A: IMAGE OF DUT

APPENDIX B: MEASURED TEST PARAMETERS

APPENDIX C: TRAVELLER

APPENDIX D: EXPOSURE REPORT

APPENDIX E: CERTIFICATE OF CONFORMANCE

APPENDIX A: IMAGE OF DUT

Manufacturer: ANALOG DEVICES	
PART #	5962R8856501V2A/OP470
TYPE	Very Low Noise Quad Operational Amplifier
DATE CODE	██████████
LOT CODE	██████████
BIAS VOLT.	±5VDC
# DUTS	10 devices + 2 controls
IMAGE REDACTED	



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APPENDIX B: MEASURED TEST PARAMETERS

Vos A (volts) BIASED					
	0k	5k	10k	20k	30k
SN171	-1.144E-04	-1.136E-04	-1.028E-04	-1.110E-04	-1.198E-04
SN175	-5.953E-05	-5.556E-05	-5.162E-05	-5.606E-05	-6.402E-05
SN179	-1.301E-04	-1.310E-04	-1.278E-04	-1.287E-04	-1.349E-04
SN181	2.027E-06	3.016E-06	5.346E-06	3.962E-06	-6.227E-06
SN184	-2.256E-05	-2.176E-05	-1.798E-05	-1.781E-05	-3.204E-05
SN212	-1.045E-04	-1.040E-04	-9.540E-05	-1.006E-04	-9.931E-05
SN215	-9.338E-05	-9.412E-05	-9.163E-05	-8.920E-05	-9.053E-05
MIN	-1.301E-04	-1.310E-04	-1.278E-04	-1.287E-04	-1.349E-04
MAX	2.027E-06	3.016E-06	5.346E-06	3.962E-06	-6.227E-06
MEAN	-6.491E-05	-6.378E-05	-5.897E-05	-6.192E-05	-7.140E-05
STD DEV. (σ)	5.701E-05	5.765E-05	5.597E-05	5.742E-05	5.529E-05
LIM HI	6.000E-04	6.000E-04	6.000E-04	6.000E-04	6.000E-04
LIM LO	-6.000E-04	-6.000E-04	-6.000E-04	-6.000E-04	-6.000E-04
K-FACTOR	9.385	9.301	9.667	9.371	9.561
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	2.470E-04	2.516E-04	2.472E-04	2.522E-04	2.311E-04
MEAN-KTL (σ)	-3.768E-04	-3.792E-04	-3.652E-04	-3.761E-04	-3.739E-04

Vos A (volts) UNBIASED					
	0k	5k	10k	20k	30k
SN187	3.873E-05	4.688E-05	4.733E-05	4.258E-05	2.627E-05
SN191	-1.412E-04	-1.389E-04	-1.380E-04	-1.479E-04	-1.560E-04
SN194	-1.615E-04	-1.617E-04	-1.564E-04	-1.683E-04	-1.800E-04
SN197	-7.684E-05	-7.959E-05	-7.887E-05	-8.747E-05	-1.044E-04
SN208	-7.339E-05	-7.117E-05	-6.846E-05	-7.329E-05	-8.807E-05
SN212	-1.045E-04	-1.040E-04	-9.540E-05	-1.006E-04	-9.931E-05
SN215	-9.338E-05	-9.412E-05	-9.163E-05	-8.920E-05	-9.053E-05
MIN	-1.615E-04	-1.617E-04	-1.564E-04	-1.683E-04	-1.800E-04
MAX	3.873E-05	4.688E-05	4.733E-05	4.258E-05	2.627E-05
MEAN	-8.284E-05	-8.090E-05	-7.888E-05	-8.688E-05	-1.004E-04
STD DEV. (σ)	7.826E-05	8.111E-05	7.991E-05	8.261E-05	8.006E-05
LIM HI	6.000E-04	6.000E-04	6.000E-04	6.000E-04	6.000E-04
LIM LO	-6.000E-04	-6.000E-04	-6.000E-04	-6.000E-04	-6.000E-04
K-FACTOR	6.608	6.400	6.521	6.211	6.240
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	3.453E-04	3.629E-04	3.583E-04	3.651E-04	3.376E-04
MEAN-KTL (σ)	-5.110E-04	-5.247E-04	-5.161E-04	-5.388E-04	-5.385E-04

Vos B (volts) BIASED					
	0k	5k	10k	20k	30k
SN171	-9.371E-05	-9.356E-05	-8.880E-05	-9.427E-05	-1.101E-04
SN175	-8.547E-05	-7.341E-05	-7.308E-05	-7.945E-05	-8.893E-05
SN179	-5.311E-05	-5.830E-05	-5.369E-05	-5.968E-05	-7.040E-05
SN181	-1.054E-04	-1.030E-04	-1.014E-04	-1.060E-04	-1.124E-04
SN184	-3.996E-05	-3.760E-05	-3.534E-05	-3.732E-05	-4.572E-05
SN212	6.448E-06	8.050E-06	1.428E-05	1.263E-05	2.044E-05
SN215	2.247E-05	2.323E-05	2.651E-05	2.558E-05	2.578E-05
MIN	-1.054E-04	-1.030E-04	-1.014E-04	-1.060E-04	-1.124E-04
MAX	-3.996E-05	-3.760E-05	-3.534E-05	-3.732E-05	-4.572E-05
MEAN	-7.553E-05	-7.317E-05	-7.046E-05	-7.534E-05	-8.551E-05
STD DEV. (σ)	2.779E-05	2.642E-05	2.653E-05	2.741E-05	2.807E-05
LIM HI	6.000E-04	6.000E-04	6.000E-04	6.000E-04	6.000E-04
LIM LO	-6.000E-04	-6.000E-04	-6.000E-04	-6.000E-04	-6.000E-04
K-FACTOR	18.87	19.94	19.96	19.14	18.33
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	7.652E-05	7.137E-05	7.468E-05	7.464E-05	6.804E-05
MEAN-KTL (σ)	-2.276E-04	-2.177E-04	-2.156E-04	-2.253E-04	-2.391E-04

Vos B (volts) UNBIASED					
	0k	5k	10k	20k	30k
SN187	-1.127E-04	-1.067E-04	-1.066E-04	-1.155E-04	-1.287E-04
SN191	1.220E-05	1.567E-05	1.759E-05	1.155E-05	-4.058E-06
SN194	-2.485E-05	-2.529E-05	-2.054E-05	-2.957E-05	-4.655E-05
SN197	-4.691E-05	-4.812E-05	-4.639E-05	-5.108E-05	-7.069E-05
SN208	5.905E-05	6.014E-05	6.197E-05	5.304E-05	3.850E-05
SN212	6.448E-06	8.050E-06	1.428E-05	1.263E-05	2.044E-05
SN215	2.247E-05	2.323E-05	2.651E-05	2.558E-05	2.578E-05
MIN	-1.127E-04	-1.067E-04	-1.066E-04	-1.155E-04	-1.287E-04
MAX	5.905E-05	6.014E-05	6.197E-05	5.304E-05	3.850E-05
MEAN	-2.264E-05	-2.086E-05	-1.879E-05	-2.631E-05	-4.230E-05
STD DEV. (σ)	6.440E-05	6.330E-05	6.388E-05	6.385E-05	6.380E-05
LIM HI	6.000E-04	6.000E-04	6.000E-04	6.000E-04	6.000E-04
LIM LO	-6.000E-04	-6.000E-04	-6.000E-04	-6.000E-04	-6.000E-04
K-FACTOR	8.965	9.149	9.099	8.985	8.742
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	3.297E-04	3.254E-04	3.307E-04	3.230E-04	3.067E-04
MEAN-KTL (σ)	-3.750E-04	-3.672E-04	-3.683E-04	-3.757E-04	-3.913E-04

Vos C (volts) BIASED					
	0k	5k	10k	20k	30k
SN171	-7.953E-05	-8.070E-05	-8.168E-05	-8.220E-05	-9.652E-05
SN175	-1.105E-04	-1.036E-04	-1.060E-04	-1.084E-04	-1.177E-04
SN179	4.313E-05	3.538E-05	3.730E-05	3.702E-05	2.395E-05
SN181	1.640E-05	1.664E-05	1.580E-05	1.628E-05	7.119E-06
SN184	-3.624E-05	-3.716E-05	-3.742E-05	-3.924E-05	-4.549E-05
SN212	-1.199E-05	-1.177E-05	-1.130E-05	-1.149E-05	-2.747E-06
SN215	5.668E-06	8.260E-06	1.031E-05	1.052E-05	8.132E-06
MIN	-1.105E-04	-1.036E-04	-1.060E-04	-1.084E-04	-1.177E-04
MAX	4.313E-05	3.538E-05	3.730E-05	3.702E-05	2.395E-05
MEAN	-3.335E-05	-3.389E-05	-3.440E-05	-3.531E-05	-4.573E-05
STD DEV. (σ)	6.407E-05	6.003E-05	6.130E-05	6.215E-05	6.206E-05
LIM HI	6.000E-04	6.000E-04	6.000E-04	6.000E-04	6.000E-04
LIM LO	-6.000E-04	-6.000E-04	-6.000E-04	-6.000E-04	-6.000E-04
K-FACTOR	8.845	9.431	9.226	9.086	8.931
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	3.172E-04	2.945E-04	3.010E-04	3.047E-04	2.938E-04
MEAN-KTL (σ)	-3.838E-04	-3.623E-04	-3.698E-04	-3.753E-04	-3.853E-04

Vos C (volts) UNBIASED					
	0k	5k	10k	20k	30k
SN187	-6.759E-05	-6.131E-05	-6.386E-05	-7.025E-05	-8.468E-05
SN191	-8.687E-05	-8.383E-05	-8.500E-05	-9.104E-05	-1.013E-04
SN194	6.511E-05	5.914E-05	6.022E-05	5.474E-05	3.872E-05
SN197	-2.945E-05	-3.250E-05	-3.360E-05	-4.089E-05	-5.427E-05
SN208	6.353E-05	6.481E-05	6.537E-05	6.436E-05	5.528E-05
SN212	-1.199E-05	-1.177E-05	-1.130E-05	-1.149E-05	-2.747E-06
SN215	5.668E-06	8.260E-06	1.031E-05	1.052E-05	8.132E-06
MIN	-8.687E-05	-8.383E-05	-8.500E-05	-9.104E-05	-1.013E-04
MAX	6.511E-05	6.481E-05	6.537E-05	6.436E-05	5.528E-05
MEAN	-1.105E-05	-1.074E-05	-1.137E-05	-1.662E-05	-2.925E-05
STD DEV. (σ)	7.184E-05	6.885E-05	7.015E-05	7.186E-05	7.186E-05
LIM HI	6.000E-04	6.000E-04	6.000E-04	6.000E-04	6.000E-04
LIM LO	-6.000E-04	-6.000E-04	-6.000E-04	-6.000E-04	-6.000E-04
K-FACTOR	8.198	8.558	8.391	8.119	7.943
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	3.820E-04	3.660E-04	3.724E-04	3.765E-04	3.639E-04
MEAN-KTL (σ)	-4.041E-04	-3.874E-04	-3.952E-04	-4.097E-04	-4.224E-04

Vos D (volts) BIASED					
	0k	5k	10k	20k	30k
SN171	-8.747E-05	-8.919E-05	-8.605E-05	-9.071E-05	-1.150E-04
SN175	-5.696E-05	-4.635E-05	-4.990E-05	-5.330E-05	-6.878E-05
SN179	-3.163E-05	-4.292E-05	-3.979E-05	-4.081E-05	-5.526E-05
SN181	-1.646E-05	-1.656E-05	-2.101E-05	-1.616E-05	-2.957E-05
SN184	-2.728E-04	-2.718E-04	-2.723E-04	-2.760E-04	-2.841E-04
SN212	-8.294E-05	-8.171E-05	-8.303E-05	-8.128E-05	-6.591E-05
SN215	-8.665E-05	-8.573E-05	-8.511E-05	-8.351E-05	-8.496E-05
MIN	-2.728E-04	-2.718E-04	-2.723E-04	-2.760E-04	-2.841E-04
MAX	-1.646E-05	-1.656E-05	-2.101E-05	-1.616E-05	-2.957E-05
MEAN	-9.306E-05	-9.336E-05	-9.381E-05	-9.540E-05	-1.105E-04
STD DEV. (σ)	1.040E-04	1.031E-04	1.025E-04	1.045E-04	1.019E-04
LIM HI	6.000E-04	6.000E-04	6.000E-04	6.000E-04	6.000E-04
LIM LO	-6.000E-04	-6.000E-04	-6.000E-04	-6.000E-04	-6.000E-04
K-FACTOR	4.873	4.914	4.936	4.829	4.805
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	4.760E-04	4.706E-04	4.672E-04	4.763E-04	4.467E-04
MEAN-KTL (σ)	-6.622E-04	-6.574E-04	-6.549E-04	-6.670E-04	-6.678E-04

Vos D (volts) UNBIASED					
	0k	5k	10k	20k	30k
SN187	-1.403E-04	-1.338E-04	-1.365E-04	-1.441E-04	-1.587E-04
SN191	-1.636E-04	-1.579E-04	-1.609E-04	-1.649E-04	-1.818E-04
SN194	-1.006E-04	-1.037E-04	-1.069E-04	-1.118E-04	-1.282E-04
SN197	-9.287E-05	-9.593E-05	-9.758E-05	-1.051E-04	-1.214E-04
SN208	-2.012E-04	-1.996E-04	-1.995E-04	-2.046E-04	-2.197E-04
SN212	-8.294E-05	-8.171E-05	-8.303E-05	-8.128E-05	-6.591E-05
SN215	-8.665E-05	-8.573E-05	-8.511E-05	-8.351E-05	-8.496E-05
MIN	-2.012E-04	-1.996E-04	-1.995E-04	-2.046E-04	-2.197E-04
MAX	-9.287E-05	-9.593E-05	-9.758E-05	-1.051E-04	-1.214E-04
MEAN	-1.397E-04	-1.382E-04	-1.403E-04	-1.461E-04	-1.620E-04
STD DEV. (σ)	4.493E-05	4.229E-05	4.148E-05	4.073E-05	4.038E-05
LIM HI	6.000E-04	6.000E-04	6.000E-04	6.000E-04	6.000E-04
LIM LO	-6.000E-04	-6.000E-04	-6.000E-04	-6.000E-04	-6.000E-04
K-FACTOR	10.24	10.92	11.08	11.14	10.85
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	1.061E-04	9.319E-05	8.669E-05	7.676E-05	5.897E-05
MEAN-KTL (σ)	-3.855E-04	-3.696E-04	-3.672E-04	-3.690E-04	-3.829E-04



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Ibn A (Amps) BIASED					
	0k	5k	10k	20k	30k
SN171	8.059E-09	9.758E-09	1.292E-08	2.044E-08	3.492E-08
SN175	1.084E-08	1.270E-08	1.557E-08	2.240E-08	3.759E-08
SN179	1.006E-08	1.095E-08	1.347E-08	2.107E-08	3.572E-08
SN181	8.148E-09	9.514E-09	1.234E-08	2.058E-08	3.614E-08
SN184	1.017E-08	1.237E-08	1.548E-08	2.329E-08	3.805E-08
SN212	9.801E-09	9.471E-09	9.786E-09	9.519E-09	9.729E-09
SN215	1.175E-08	1.151E-08	1.165E-08	1.134E-08	1.164E-08
MIN	8.059E-09	9.514E-09	1.234E-08	2.044E-08	3.492E-08
MAX	1.084E-08	1.270E-08	1.557E-08	2.329E-08	3.805E-08
MEAN	9.455E-09	1.106E-08	1.396E-08	2.156E-08	3.648E-08
STD DEV. (σ)	1.270E-09	1.458E-09	1.487E-09	1.240E-09	1.306E-09
LIM HI	5.000E-07	5.000E-07	5.000E-07	5.000E-07	5.000E-07
LIM LO	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07
K-FACTOR	386.2	335.3	326.8	385.8	354.9
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	1.640E-08	1.904E-08	2.209E-08	2.834E-08	4.363E-08
MEAN-KTL (σ)	2.507E-09	3.082E-09	5.819E-09	1.477E-08	2.934E-08

Ibn A (Amps) UNBIASED					
	0k	5k	10k	20k	30k
SN187	1.164E-08	1.581E-08	1.708E-08	2.254E-08	6.602E-08
SN191	9.594E-09	1.186E-08	1.459E-08	1.400E-08	4.619E-08
SN194	9.467E-09	1.234E-08	1.556E-08	1.660E-08	5.370E-08
SN197	9.396E-09	1.232E-08	1.435E-08	2.076E-08	6.186E-08
SN208	9.538E-09	1.268E-08	1.346E-08	1.582E-08	5.258E-08
SN212	9.801E-09	9.471E-09	9.786E-09	9.519E-09	9.729E-09
SN215	1.175E-08	1.151E-08	1.165E-08	1.134E-08	1.164E-08
MIN	9.396E-09	1.186E-08	1.346E-08	1.400E-08	4.619E-08
MAX	1.164E-08	1.581E-08	1.708E-08	2.254E-08	6.602E-08
MEAN	9.927E-09	1.300E-08	1.501E-08	1.794E-08	5.607E-08
STD DEV. (σ)	9.605E-10	1.597E-09	1.379E-09	3.568E-09	7.873E-09
LIM HI	5.000E-07	5.000E-07	5.000E-07	5.000E-07	5.000E-07
LIM LO	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07
K-FACTOR	510.2	305.0	351.8	135.1	56.39
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	1.518E-08	2.174E-08	2.255E-08	3.747E-08	9.914E-08
MEAN-KTL (σ)	4.672E-09	4.267E-09	7.466E-09	-1.577E-09	1.300E-08

Ibn B (Amps) BIASED					
	0k	5k	10k	20k	30k
SN171	1.024E-08	1.212E-08	1.554E-08	2.301E-08	3.677E-08
SN175	9.887E-09	1.149E-08	1.408E-08	2.112E-08	3.528E-08
SN179	9.728E-09	1.132E-08	1.397E-08	2.072E-08	3.556E-08
SN181	7.489E-09	8.692E-09	1.134E-08	1.924E-08	3.503E-08
SN184	9.412E-09	1.145E-08	1.460E-08	2.174E-08	3.682E-08
SN212	1.024E-08	1.005E-08	1.044E-08	1.009E-08	1.029E-08
SN215	1.211E-08	1.195E-08	1.217E-08	1.179E-08	1.211E-08
MIN	7.489E-09	8.692E-09	1.134E-08	1.924E-08	3.503E-08
MAX	1.024E-08	1.212E-08	1.554E-08	2.301E-08	3.682E-08
MEAN	9.351E-09	1.101E-08	1.391E-08	2.117E-08	3.589E-08
STD DEV. (σ)	1.083E-09	1.335E-09	1.563E-09	1.382E-09	8.456E-10
LIM HI	5.000E-07	5.000E-07	5.000E-07	5.000E-07	5.000E-07
LIM LO	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07
K-FACTOR	453.1	366.4	311.0	346.5	548.9
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	1.528E-08	1.832E-08	2.246E-08	2.873E-08	4.052E-08
MEAN-KTL (σ)	3.427E-09	3.712E-09	5.356E-09	1.360E-08	3.127E-08

Ibn B (Amps) UNBIASED					
	0k	5k	10k	20k	30k
SN187	1.015E-08	1.321E-08	1.462E-08	1.638E-08	5.728E-08
SN191	1.094E-08	1.365E-08	1.720E-08	1.709E-08	4.879E-08
SN194	1.023E-08	1.416E-08	1.700E-08	1.831E-08	5.211E-08
SN197	1.031E-08	1.344E-08	1.518E-08	1.982E-08	5.917E-08
SN208	9.276E-09	1.189E-08	1.431E-08	1.764E-08	5.489E-08
SN212	1.024E-08	1.005E-08	1.044E-08	1.009E-08	1.029E-08
SN215	1.211E-08	1.195E-08	1.217E-08	1.179E-08	1.211E-08
MIN	9.276E-09	1.189E-08	1.431E-08	1.638E-08	4.879E-08
MAX	1.094E-08	1.416E-08	1.720E-08	1.982E-08	5.917E-08
MEAN	1.018E-08	1.327E-08	1.566E-08	1.785E-08	5.445E-08
STD DEV. (σ)	5.948E-10	8.476E-10	1.351E-09	1.311E-09	4.123E-09
LIM HI	5.000E-07	5.000E-07	5.000E-07	5.000E-07	5.000E-07
LIM LO	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07
K-FACTOR	823.5	574.3	358.5	367.8	108.1
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	1.344E-08	1.791E-08	2.305E-08	2.502E-08	7.700E-08
MEAN-KTL (σ)	6.927E-09	8.633E-09	8.270E-09	1.068E-08	3.189E-08



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Ibn C (Amps) BIASED					
	0k	5k	10k	20k	30k
SN171	6.763E-09	9.188E-09	1.231E-08	1.910E-08	3.241E-08
SN175	8.886E-09	1.044E-08	1.345E-08	2.083E-08	3.433E-08
SN179	7.100E-09	9.077E-09	1.168E-08	1.881E-08	3.254E-08
SN181	7.218E-09	8.952E-09	1.209E-08	1.786E-08	3.150E-08
SN184	8.042E-09	1.061E-08	1.369E-08	2.003E-08	3.325E-08
SN212	7.473E-09	7.311E-09	7.595E-09	7.268E-09	7.442E-09
SN215	7.739E-09	7.620E-09	7.778E-09	7.498E-09	7.728E-09
MIN	6.763E-09	8.952E-09	1.168E-08	1.786E-08	3.150E-08
MAX	8.886E-09	1.061E-08	1.369E-08	2.083E-08	3.433E-08
MEAN	7.602E-09	9.653E-09	1.264E-08	1.933E-08	3.281E-08
STD DEV. (σ)	8.581E-10	8.023E-10	8.791E-10	1.143E-09	1.055E-09
LIM HI	5.000E-07	5.000E-07	5.000E-07	5.000E-07	5.000E-07
LIM LO	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07
K-FACTOR	573.8	611.2	554.4	420.6	442.8
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	1.230E-08	1.404E-08	1.745E-08	2.558E-08	3.858E-08
MEAN-KTL (σ)	2.907E-09	5.264E-09	7.834E-09	1.307E-08	2.703E-08

Ibn C (Amps) UNBIASED					
	0k	5k	10k	20k	30k
SN187	8.845E-09	1.286E-08	1.401E-08	1.743E-08	5.631E-08
SN191	7.956E-09	1.034E-08	1.303E-08	1.196E-08	4.177E-08
SN194	6.595E-09	9.531E-09	1.196E-08	1.151E-08	4.426E-08
SN197	8.930E-09	1.242E-08	1.401E-08	1.682E-08	5.369E-08
SN208	7.497E-09	1.097E-08	1.162E-08	1.522E-08	5.146E-08
SN212	7.473E-09	7.311E-09	7.595E-09	7.268E-09	7.442E-09
SN215	7.739E-09	7.620E-09	7.778E-09	7.498E-09	7.728E-09
MIN	6.595E-09	9.531E-09	1.162E-08	1.151E-08	4.177E-08
MAX	8.930E-09	1.286E-08	1.401E-08	1.743E-08	5.631E-08
MEAN	7.965E-09	1.122E-08	1.293E-08	1.459E-08	4.950E-08
STD DEV. (σ)	9.749E-10	1.398E-09	1.118E-09	2.731E-09	6.225E-09
LIM HI	5.000E-07	5.000E-07	5.000E-07	5.000E-07	5.000E-07
LIM LO	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07
K-FACTOR	504.7	349.6	435.7	177.7	72.37
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	1.330E-08	1.887E-08	1.904E-08	2.953E-08	8.355E-08
MEAN-KTL (σ)	2.631E-09	3.575E-09	6.809E-09	-3.546E-10	1.544E-08

Ibn D (Amps) BIASED					
	0k	5k	10k	20k	30k
SN171	5.214E-09	7.550E-09	1.022E-08	1.736E-08	2.943E-08
SN175	7.916E-09	9.096E-09	1.195E-08	1.924E-08	3.172E-08
SN179	8.004E-09	9.822E-09	1.222E-08	1.852E-08	3.370E-08
SN181	5.405E-09	7.343E-09	1.053E-08	1.804E-08	3.252E-08
SN184	7.203E-09	9.805E-09	1.271E-08	1.953E-08	3.277E-08
SN212	7.645E-09	7.514E-09	7.798E-09	7.473E-09	7.656E-09
SN215	8.283E-09	8.225E-09	8.385E-09	8.067E-09	8.345E-09
MIN	5.214E-09	7.343E-09	1.022E-08	1.736E-08	2.943E-08
MAX	8.004E-09	9.822E-09	1.271E-08	1.953E-08	3.370E-08
MEAN	6.748E-09	8.723E-09	1.153E-08	1.854E-08	3.203E-08
STD DEV. (σ)	1.351E-09	1.204E-09	1.091E-09	8.822E-10	1.615E-09
LIM HI	5.000E-07	5.000E-07	5.000E-07	5.000E-07	5.000E-07
LIM LO	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07
K-FACTOR	365.0	408.1	447.7	545.8	289.8
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	1.414E-08	1.531E-08	1.749E-08	2.336E-08	4.086E-08
MEAN-KTL (σ)	-6.453E-10	2.136E-09	5.557E-09	1.371E-08	2.319E-08

Ibn D (Amps) UNBIASED					
	0k	5k	10k	20k	30k
SN187	7.739E-09	1.123E-08	1.243E-08	1.590E-08	5.535E-08
SN191	5.334E-09	7.656E-09	9.919E-09	8.826E-09	3.810E-08
SN194	6.435E-09	9.121E-09	1.172E-08	1.207E-08	4.431E-08
SN197	6.839E-09	9.603E-09	1.109E-08	1.631E-08	5.547E-08
SN208	6.802E-09	9.950E-09	1.239E-08	1.482E-08	4.684E-08
SN212	7.645E-09	7.514E-09	7.798E-09	7.473E-09	7.656E-09
SN215	8.283E-09	8.225E-09	8.385E-09	8.067E-09	8.345E-09
MIN	5.334E-09	7.656E-09	9.919E-09	8.826E-09	3.810E-08
MAX	7.739E-09	1.123E-08	1.243E-08	1.631E-08	5.547E-08
MEAN	6.630E-09	9.512E-09	1.151E-08	1.359E-08	4.801E-08
STD DEV. (σ)	8.690E-10	1.299E-09	1.046E-09	3.133E-09	7.463E-09
LIM HI	5.000E-07	5.000E-07	5.000E-07	5.000E-07	5.000E-07
LIM LO	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07
K-FACTOR	567.7	377.6	467.2	155.3	60.56
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	1.138E-08	1.662E-08	1.723E-08	3.072E-08	8.884E-08
MEAN-KTL (σ)	1.875E-09	2.405E-09	5.790E-09	-3.553E-09	7.183E-09



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Ibi A (Amps) BIASED					
	0k	5k	10k	20k	30k
SN171	7.697E-09	9.223E-09	1.203E-08	1.947E-08	3.301E-08
SN175	8.991E-09	1.001E-08	1.224E-08	1.914E-08	3.357E-08
SN179	9.281E-09	9.934E-09	1.217E-08	1.941E-08	3.389E-08
SN181	4.852E-09	5.498E-09	7.735E-09	1.468E-08	2.888E-08
SN184	8.505E-09	1.010E-08	1.330E-08	2.071E-08	3.464E-08
SN212	7.817E-09	7.535E-09	7.840E-09	7.593E-09	7.774E-09
SN215	9.416E-09	9.112E-09	9.285E-09	8.990E-09	9.294E-09
MIN	4.852E-09	5.498E-09	7.735E-09	1.468E-08	2.888E-08
MAX	9.281E-09	1.010E-08	1.330E-08	2.071E-08	3.464E-08
MEAN	7.865E-09	8.953E-09	1.150E-08	1.868E-08	3.280E-08
STD DEV. (σ)	1.788E-09	1.962E-09	2.162E-09	2.318E-09	2.268E-09
LIM HI	5.000E-07	5.000E-07	5.000E-07	5.000E-07	5.000E-07
LIM LO	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07
K-FACTOR	275.2	250.2	226.0	207.7	206.0
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	1.765E-08	1.969E-08	2.332E-08	3.136E-08	4.521E-08
MEAN-KTL (σ)	-1.917E-09	-1.784E-09	-3.319E-10	6.001E-09	2.039E-08

Ibi A (Amps) UNBIASED					
	0k	5k	10k	20k	30k
SN187	8.437E-09	1.155E-08	1.191E-08	1.551E-08	5.824E-08
SN191	8.446E-09	1.054E-08	1.373E-08	1.242E-08	4.437E-08
SN194	8.473E-09	1.111E-08	1.414E-08	1.543E-08	5.118E-08
SN197	7.968E-09	1.051E-08	1.125E-08	1.727E-08	5.815E-08
SN208	8.038E-09	1.072E-08	1.166E-08	1.305E-08	4.997E-08
SN212	7.817E-09	7.535E-09	7.840E-09	7.593E-09	7.774E-09
SN215	9.416E-09	9.112E-09	9.285E-09	8.990E-09	9.294E-09
MIN	7.968E-09	1.051E-08	1.125E-08	1.242E-08	4.437E-08
MAX	8.473E-09	1.155E-08	1.414E-08	1.727E-08	5.824E-08
MEAN	8.272E-09	1.089E-08	1.254E-08	1.474E-08	5.238E-08
STD DEV. (σ)	2.475E-10	4.415E-10	1.305E-09	1.982E-09	5.896E-09
LIM HI	5.000E-07	5.000E-07	5.000E-07	5.000E-07	5.000E-07
LIM LO	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07
K-FACTOR	1987	1108	373.6	244.9	75.92
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	9.627E-09	1.330E-08	1.968E-08	2.558E-08	8.464E-08
MEAN-KTL (σ)	6.918E-09	8.471E-09	5.399E-09	3.894E-09	2.013E-08

Ibi B (Amps) BIASED					
	0k	5k	10k	20k	30k
SN171	9.693E-09	1.100E-08	1.358E-08	2.095E-08	3.454E-08
SN175	8.791E-09	1.006E-08	1.259E-08	2.012E-08	3.317E-08
SN179	9.248E-09	1.047E-08	1.304E-08	1.925E-08	3.420E-08
SN181	6.392E-09	7.400E-09	9.794E-09	1.704E-08	3.132E-08
SN184	8.243E-09	1.016E-08	1.255E-08	1.953E-08	3.415E-08
SN212	8.428E-09	8.226E-09	8.570E-09	8.248E-09	8.478E-09
SN215	9.346E-09	9.238E-09	9.463E-09	9.146E-09	9.470E-09
MIN	6.392E-09	7.400E-09	9.794E-09	1.704E-08	3.132E-08
MAX	9.693E-09	1.100E-08	1.358E-08	2.095E-08	3.454E-08
MEAN	8.473E-09	9.818E-09	1.231E-08	1.938E-08	3.348E-08
STD DEV. (σ)	1.282E-09	1.400E-09	1.467E-09	1.460E-09	1.309E-09
LIM HI	5.000E-07	5.000E-07	5.000E-07	5.000E-07	5.000E-07
LIM LO	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07
K-FACTOR	383.4	350.0	332.4	329.2	356.4
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	1.549E-08	1.748E-08	2.034E-08	2.737E-08	4.064E-08
MEAN-KTL (σ)	1.460E-09	2.156E-09	4.283E-09	1.139E-08	2.632E-08

Ibi B (Amps) UNBIASED					
	0k	5k	10k	20k	30k
SN187	8.913E-09	1.228E-08	1.295E-08	1.552E-08	5.739E-08
SN191	8.585E-09	1.121E-08	1.399E-08	1.346E-08	4.505E-08
SN194	8.329E-09	1.163E-08	1.311E-08	1.381E-08	4.785E-08
SN197	8.246E-09	1.105E-08	1.216E-08	1.530E-08	5.407E-08
SN208	6.789E-09	9.673E-09	1.115E-08	1.290E-08	5.033E-08
SN212	8.428E-09	8.226E-09	8.570E-09	8.248E-09	8.478E-09
SN215	9.346E-09	9.238E-09	9.463E-09	9.146E-09	9.470E-09
MIN	6.789E-09	9.673E-09	1.115E-08	1.290E-08	4.505E-08
MAX	8.913E-09	1.228E-08	1.399E-08	1.552E-08	5.739E-08
MEAN	8.172E-09	1.117E-08	1.267E-08	1.420E-08	5.094E-08
STD DEV. (σ)	8.159E-10	9.619E-10	1.071E-09	1.156E-09	4.899E-09
LIM HI	5.000E-07	5.000E-07	5.000E-07	5.000E-07	5.000E-07
LIM LO	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07
K-FACTOR	602.8	508.2	455.2	420.4	91.66
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	1.264E-08	1.643E-08	1.853E-08	2.052E-08	7.774E-08
MEAN-KTL (σ)	3.709E-09	5.906E-09	6.815E-09	7.875E-09	2.413E-08



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Ibi C (Amps) BIASED					
	0k	5k	10k	20k	30k
SN171	7.879E-09	9.393E-09	1.233E-08	1.907E-08	3.234E-08
SN175	9.728E-09	1.143E-08	1.435E-08	2.082E-08	3.490E-08
SN179	7.613E-09	9.182E-09	1.164E-08	1.907E-08	3.307E-08
SN181	7.589E-09	8.812E-09	1.123E-08	1.771E-08	3.212E-08
SN184	8.034E-09	1.027E-08	1.255E-08	1.902E-08	3.290E-08
SN212	7.033E-09	6.896E-09	7.215E-09	6.901E-09	7.099E-09
SN215	7.348E-09	7.355E-09	7.571E-09	7.286E-09	7.533E-09
MIN	7.589E-09	8.812E-09	1.123E-08	1.771E-08	3.212E-08
MAX	9.728E-09	1.143E-08	1.435E-08	2.082E-08	3.490E-08
MEAN	8.169E-09	9.817E-09	1.242E-08	1.914E-08	3.307E-08
STD DEV. (σ)	8.914E-10	1.049E-09	1.201E-09	1.106E-09	1.097E-09
LIM HI	5.000E-07	5.000E-07	5.000E-07	5.000E-07	5.000E-07
LIM LO	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07
K-FACTOR	551.8	467.4	405.8	434.8	425.7
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	1.305E-08	1.556E-08	1.899E-08	2.519E-08	3.907E-08
MEAN-KTL (σ)	3.292E-09	4.079E-09	5.847E-09	1.309E-08	2.706E-08

Ibi C (Amps) UNBIASED					
	0k	5k	10k	20k	30k
SN187	8.266E-09	1.192E-08	1.281E-08	1.724E-08	5.665E-08
SN191	8.466E-09	1.133E-08	1.348E-08	1.299E-08	4.268E-08
SN194	5.497E-09	8.378E-09	1.014E-08	1.027E-08	4.285E-08
SN197	6.955E-09	1.017E-08	1.194E-08	1.642E-08	5.546E-08
SN208	7.042E-09	1.044E-08	1.154E-08	1.457E-08	5.170E-08
SN212	7.033E-09	6.896E-09	7.215E-09	6.901E-09	7.099E-09
SN215	7.348E-09	7.355E-09	7.571E-09	7.286E-09	7.533E-09
MIN	5.497E-09	8.378E-09	1.014E-08	1.027E-08	4.268E-08
MAX	8.466E-09	1.192E-08	1.348E-08	1.724E-08	5.665E-08
MEAN	7.245E-09	1.045E-08	1.198E-08	1.430E-08	4.987E-08
STD DEV. (σ)	1.195E-09	1.352E-09	1.277E-09	2.791E-09	6.737E-09
LIM HI	5.000E-07	5.000E-07	5.000E-07	5.000E-07	5.000E-07
LIM LO	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07
K-FACTOR	412.3	362.2	382.3	174.0	66.82
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	1.378E-08	1.784E-08	1.897E-08	2.957E-08	8.673E-08
MEAN-KTL (σ)	7.062E-10	3.053E-09	4.997E-09	-9.738E-10	1.301E-08

Ibi D (Amps) BIASED					
	0k	5k	10k	20k	30k
SN171	5.920E-09	7.660E-09	1.039E-08	1.690E-08	2.984E-08
SN175	7.450E-09	8.842E-09	1.117E-08	1.862E-08	3.264E-08
SN179	7.757E-09	8.667E-09	1.104E-08	1.772E-08	3.245E-08
SN181	5.042E-09	6.639E-09	9.857E-09	1.738E-08	3.072E-08
SN184	8.695E-09	1.087E-08	1.352E-08	2.075E-08	3.528E-08
SN212	7.211E-09	7.126E-09	7.385E-09	7.077E-09	7.286E-09
SN215	8.636E-09	8.581E-09	8.732E-09	8.401E-09	8.634E-09
MIN	5.042E-09	6.639E-09	9.857E-09	1.690E-08	2.984E-08
MAX	8.695E-09	1.087E-08	1.352E-08	2.075E-08	3.528E-08
MEAN	6.973E-09	8.536E-09	1.120E-08	1.827E-08	3.219E-08
STD DEV. (σ)	1.470E-09	1.575E-09	1.403E-09	1.520E-09	2.092E-09
LIM HI	5.000E-07	5.000E-07	5.000E-07	5.000E-07	5.000E-07
LIM LO	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07
K-FACTOR	335.4	312.0	348.5	316.9	223.6
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	1.502E-08	1.715E-08	1.887E-08	2.659E-08	4.363E-08
MEAN-KTL (σ)	-1.070E-09	-8.203E-11	3.522E-09	9.957E-09	2.074E-08

Ibi D (Amps) UNBIASED					
	0k	5k	10k	20k	30k
SN187	8.542E-09	1.176E-08	1.328E-08	1.845E-08	5.821E-08
SN191	5.503E-09	8.097E-09	9.879E-09	1.073E-08	4.006E-08
SN194	6.100E-09	9.129E-09	1.187E-08	1.291E-08	4.424E-08
SN197	7.233E-09	9.628E-09	1.127E-08	1.799E-08	5.733E-08
SN208	7.517E-09	1.045E-08	1.215E-08	1.538E-08	4.962E-08
SN212	7.211E-09	7.126E-09	7.385E-09	7.077E-09	7.286E-09
SN215	8.636E-09	8.581E-09	8.732E-09	8.401E-09	8.634E-09
MIN	5.503E-09	8.097E-09	9.879E-09	1.073E-08	4.006E-08
MAX	8.542E-09	1.176E-08	1.328E-08	1.845E-08	5.821E-08
MEAN	6.979E-09	9.813E-09	1.169E-08	1.509E-08	4.989E-08
STD DEV. (σ)	1.199E-09	1.382E-09	1.248E-09	3.299E-09	7.956E-09
LIM HI	5.000E-07	5.000E-07	5.000E-07	5.000E-07	5.000E-07
LIM LO	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07	-5.000E-07
K-FACTOR	411.3	354.6	391.3	147.0	56.57
KTL	5.471	5.471	5.471	5.471	5.471
MEAN+KTL (σ)	1.354E-08	1.738E-08	1.852E-08	3.314E-08	9.342E-08
MEAN-KTL (σ)	4.206E-10	2.250E-09	4.863E-09	-2.959E-09	6.364E-09



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CMRR A (dB) BIASED					
	0k	5k	10k	20k	30k
SN171	119.6	119.6	118.6	117.1	115.8
SN175	122.5	122.6	120.8	119.0	117.6
SN179	118.7	119.0	118.3	116.1	115.6
SN181	121.9	121.8	120.3	118.0	117.2
SN184	123.7	123.6	122.7	119.5	118.3
SN212	118.9	119.4	120.0	118.5	119.4
SN215	122.3	124.8	124.2	123.6	122.3
MIN	118.7	119.0	118.3	116.1	115.6
MAX	123.7	123.6	122.7	119.5	118.3
MEAN	121.3	121.3	120.1	117.9	116.9
STD DEV. (σ)	2.074	1.963	1.787	1.383	1.166
LIM LO	100.0	100.0	100.0	100.0	100.0
K-FACTOR	10.26	10.86	11.27	12.97	14.49
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	111.6	112.2	111.8	111.5	111.5

CMRR A (dB) UNBIASED					
	0k	5k	10k	20k	30k
SN187	122.2	122.6	120.5	116.7	115.4
SN191	119.8	119.9	119.2	115.6	113.8
SN194	118.8	118.4	118.0	114.9	113.4
SN197	121.1	120.9	119.8	116.2	114.5
SN208	119.5	120.1	118.6	115.0	114.4
SN212	118.9	119.4	120.0	118.5	119.4
SN215	122.3	124.8	124.2	123.6	122.3
MIN	118.8	118.4	118.0	114.9	113.4
MAX	122.2	122.6	120.5	116.7	115.4
MEAN	120.3	120.4	119.2	115.7	114.3
STD DEV. (σ)	1.359	1.535	0.9808	0.7727	0.7616
LIM LO	100.0	100.0	100.0	100.0	100.0
K-FACTOR	14.92	13.27	19.60	20.29	18.78
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	113.9	113.2	114.6	112.1	110.7

CMRR B (dB) BIASED					
	0k	5k	10k	20k	30k
SN171	121.6	121.4	120.8	118.3	116.8
SN175	121.5	121.3	120.9	118.2	116.8
SN179	122.5	122.4	121.2	118.9	117.5
SN181	119.3	119.8	118.8	116.9	116.2
SN184	122.0	121.2	120.6	118.5	117.4
SN212	124.4	124.8	124.9	124.4	124.5
SN215	123.7	123.0	124.4	123.1	124.0
MIN	119.3	119.8	118.8	116.9	116.2
MAX	122.5	122.4	121.2	118.9	117.5
MEAN	121.4	121.2	120.5	118.2	116.9
STD DEV. (σ)	1.228	0.9284	0.9529	0.7537	0.5273
LIM LO	100.0	100.0	100.0	100.0	100.0
K-FACTOR	17.42	22.86	21.47	24.10	32.13
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	115.7	116.9	116.0	114.6	114.5

CMRR B (dB) UNBIASED					
	0k	5k	10k	20k	30k
SN187	119.0	119.4	118.0	114.8	113.6
SN191	124.8	124.4	122.9	117.9	116.0
SN194	122.7	122.8	120.7	116.8	115.3
SN197	123.6	123.9	122.1	117.6	115.8
SN208	124.8	124.3	123.7	118.0	115.9
SN212	124.4	124.8	124.9	124.4	124.5
SN215	123.7	123.0	124.4	123.1	124.0
MIN	119.0	119.4	118.0	114.8	113.6
MAX	124.8	124.4	123.7	118.0	116.0
MEAN	123.0	123.0	121.5	117.0	115.3
STD DEV. (σ)	2.394	2.089	2.239	1.327	0.9985
LIM LO	100.0	100.0	100.0	100.0	100.0
K-FACTOR	9.598	10.99	9.595	12.82	15.34
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	111.8	113.2	111.0	110.8	110.7



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CMRR C (dB) BIASED					
	0k	5k	10k	20k	30k
SN171	121.8	122.0	120.9	118.6	117.0
SN175	119.3	119.4	118.4	116.9	116.0
SN179	123.9	123.4	123.2	120.2	118.3
SN181	122.8	123.1	121.6	119.1	118.9
SN184	123.0	123.0	122.0	119.5	118.4
SN212	122.2	123.0	125.0	122.9	123.7
SN215	120.2	122.1	122.1	121.4	120.9
MIN	119.3	119.4	118.4	116.9	116.0
MAX	123.9	123.4	123.2	120.2	118.9
MEAN	122.2	122.2	121.2	118.9	117.7
STD DEV. (σ)	1.764	1.641	1.784	1.242	1.190
LIM LO	100.0	100.0	100.0	100.0	100.0
K-FACTOR	12.56	13.52	11.90	15.18	14.89
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	113.9	114.5	112.9	113.1	112.2

CMRR C (dB) UNBIASED					
	0k	5k	10k	20k	30k
SN187	121.8	121.8	119.7	116.4	114.9
SN191	121.1	120.9	120.1	117.1	114.2
SN194	126.8	126.1	123.8	119.3	117.3
SN197	123.6	123.3	121.3	117.0	115.5
SN208	122.8	123.0	121.2	116.7	114.5
SN212	122.2	123.0	125.0	122.9	123.7
SN215	120.2	122.1	122.1	121.4	120.9
MIN	121.1	120.9	119.7	116.4	114.2
MAX	126.8	126.1	123.8	119.3	117.3
MEAN	123.2	123.0	121.2	117.3	115.3
STD DEV. (σ)	2.216	1.972	1.599	1.151	1.230
LIM LO	100.0	100.0	100.0	100.0	100.0
K-FACTOR	10.48	11.68	13.27	15.03	12.43
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	112.9	113.8	113.8	111.9	109.5

CMRR D (dB) BIASED					
	0k	5k	10k	20k	30k
SN171	123.7	123.2	122.6	120.0	118.4
SN175	128.1	129.0	126.6	122.0	120.7
SN179	124.5	123.9	123.2	120.0	119.0
SN181	121.6	122.4	122.0	118.8	117.8
SN184	118.4	118.7	117.8	115.9	115.4
SN212	121.2	122.6	122.5	120.8	121.8
SN215	120.8	121.7	122.1	120.8	121.4
MIN	118.4	118.7	117.8	115.9	115.4
MAX	128.1	129.0	126.6	122.0	120.7
MEAN	123.3	123.4	122.4	119.3	118.3
STD DEV. (σ)	3.589	3.699	3.148	2.240	1.931
LIM LO	100.0	100.0	100.0	100.0	100.0
K-FACTOR	6.480	6.337	7.129	8.634	9.457
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	106.5	106.2	107.8	108.9	109.3

CMRR D (dB) UNBIASED					
	0k	5k	10k	20k	30k
SN187	119.4	119.2	118.1	114.8	113.7
SN191	121.5	121.4	120.0	116.4	115.2
SN194	123.5	123.1	122.0	117.4	115.9
SN197	120.8	120.5	119.1	115.4	114.4
SN208	119.6	119.4	118.6	115.4	113.6
SN212	121.2	122.6	122.5	120.8	121.8
SN215	120.8	121.7	122.1	120.8	121.4
MIN	119.4	119.2	118.1	114.8	113.6
MAX	123.5	123.1	122.0	117.4	115.9
MEAN	121.0	120.7	119.6	115.9	114.6
STD DEV. (σ)	1.662	1.599	1.534	1.026	0.9864
LIM LO	100.0	100.0	100.0	100.0	100.0
K-FACTOR	12.61	12.96	12.75	15.48	14.76
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	113.2	113.3	112.4	111.1	110.0



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PSRR A (dB) BIASED					
	0k	5k	10k	20k	30k
SN171	118.0	118.3	119.3	118.8	119.6
SN175	159.9	154.5	146.9	134.4	130.1
SN179	115.9	116.4	116.3	116.2	117.4
SN181	121.1	121.6	121.0	120.3	122.1
SN184	127.0	127.9	126.4	135.8	135.9
SN212	117.2	116.8	117.5	116.1	117.3
SN215	130.6	135.0	135.6	133.9	137.2
MIN	115.9	116.4	116.3	116.2	117.4
MAX	159.9	154.5	146.9	135.8	135.9
MEAN	128.4	127.7	126.0	125.1	125.0
STD DEV. (σ)	18.11	15.58	12.26	9.259	7.748
LIM LO	115.0	115.0	115.0	115.0	115.0
K-FACTOR	0.7388	0.8175	0.8958	1.091	1.293
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	43.88	55.02	68.79	81.90	88.87

PSRR A (dB) UNBIASED					
	0k	5k	10k	20k	30k
SN187	121.2	122.9	124.8	130.4	137.2
SN191	121.4	122.1	124.4	127.5	142.7
SN194	118.8	118.2	118.7	120.8	124.2
SN197	119.0	120.3	121.4	124.8	135.1
SN208	119.2	120.4	124.0	127.6	130.0
SN212	117.2	116.8	117.5	116.1	117.3
SN215	130.6	135.0	135.6	133.9	137.2
MIN	118.8	118.2	118.7	120.8	124.2
MAX	121.4	122.9	124.8	130.4	142.7
MEAN	119.9	120.8	122.7	126.2	133.8
STD DEV. (σ)	1.270	1.821	2.582	3.620	7.054
LIM LO	115.0	115.0	115.0	115.0	115.0
K-FACTOR	3.875	3.174	2.966	3.100	2.671
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	114.0	112.3	110.6	109.3	100.9

PSRR B (dB) BIASED					
	0k	5k	10k	20k	30k
SN171	126.3	127.2	126.9	129.0	130.2
SN175	137.3	136.6	145.8	143.8	144.1
SN179	129.2	133.2	133.3	135.1	142.6
SN181	118.8	119.5	119.9	120.4	121.4
SN184	125.6	126.9	126.6	128.6	129.6
SN212	136.2	140.2	147.3	141.9	150.8
SN215	131.1	135.9	134.8	132.8	132.6
MIN	118.8	119.5	119.9	120.4	121.4
MAX	137.3	136.6	145.8	143.8	144.1
MEAN	127.4	128.7	130.5	131.4	133.6
STD DEV. (σ)	6.702	6.572	9.778	8.690	9.587
LIM LO	115.0	115.0	115.0	115.0	115.0
K-FACTOR	1.856	2.081	1.585	1.885	1.938
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	96.17	98.01	84.87	90.83	88.85

PSRR B (dB) UNBIASED					
	0k	5k	10k	20k	30k
SN187	120.6	121.1	120.9	125.3	130.5
SN191	136.9	134.2	129.7	122.9	120.2
SN194	135.7	146.3	138.6	132.0	137.3
SN197	129.9	135.4	140.4	132.4	127.7
SN208	129.6	128.8	127.3	123.4	122.4
SN212	136.2	140.2	147.3	141.9	150.8
SN215	131.1	135.9	134.8	132.8	132.6
MIN	120.6	121.1	120.9	122.9	120.2
MAX	136.9	146.3	140.4	132.4	137.3
MEAN	130.5	133.2	131.4	127.2	127.6
STD DEV. (σ)	6.465	9.263	8.105	4.653	6.788
LIM LO	115.0	115.0	115.0	115.0	115.0
K-FACTOR	2.404	1.960	2.021	2.622	1.859
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	100.4	89.94	93.56	105.5	95.95



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PSRR C (dB) BIASED					
	0k	5k	10k	20k	30k
SN171	126.0	125.5	124.9	124.2	122.4
SN175	127.1	126.3	126.5	131.4	128.7
SN179	120.6	120.3	120.2	119.6	117.8
SN181	118.6	118.4	118.9	118.8	117.2
SN184	122.4	121.2	120.1	119.4	118.3
SN212	121.0	120.2	120.9	121.1	121.2
SN215	139.0	147.7	133.9	132.0	131.7
MIN	118.6	118.4	118.9	118.8	117.2
MAX	127.1	126.3	126.5	131.4	128.7
MEAN	122.9	122.3	122.1	122.7	120.9
STD DEV. (σ)	3.580	3.415	3.356	5.330	4.826
LIM LO	115.0	115.0	115.0	115.0	115.0
K-FACTOR	2.218	2.149	2.122	1.441	1.218
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	106.2	106.4	106.5	97.81	98.36

PSRR C (dB) UNBIASED					
	0k	5k	10k	20k	30k
SN187	122.5	121.6	120.2	118.2	116.4
SN191	147.3	138.3	140.5	131.1	124.6
SN194	118.8	118.4	117.8	116.7	115.0
SN197	118.5	117.6	117.1	115.9	114.6
SN208	119.7	119.5	117.9	116.0	114.9
SN212	121.0	120.2	120.9	121.1	121.2
SN215	139.0	147.7	133.9	132.0	131.7
MIN	118.5	117.6	117.1	115.9	114.6
MAX	147.3	138.3	140.5	131.1	124.6
MEAN	125.4	123.1	122.7	119.6	117.1
STD DEV. (σ)	12.37	8.640	10.02	6.505	4.250
LIM LO	115.0	115.0	115.0	115.0	115.0
K-FACTOR	0.8378	0.9352	0.7686	0.7041	0.4942
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	67.66	82.77	75.95	89.23	97.27

PSRR D (dB) BIASED					
	0k	5k	10k	20k	30k
SN171	128.1	127.2	126.7	124.4	122.2
SN175	125.4	124.9	124.7	123.3	120.5
SN179	122.6	121.3	120.1	119.2	118.2
SN181	120.9	121.6	121.6	119.4	118.8
SN184	128.0	128.5	135.0	130.1	133.0
SN212	123.8	124.5	124.5	124.0	125.3
SN215	138.7	140.6	143.3	134.6	134.6
MIN	120.9	121.3	120.1	119.2	118.2
MAX	128.1	128.5	135.0	130.1	133.0
MEAN	125.0	124.7	125.6	123.3	122.5
STD DEV. (σ)	3.215	3.237	5.844	4.457	6.052
LIM LO	115.0	115.0	115.0	115.0	115.0
K-FACTOR	3.111	2.997	1.817	1.858	1.246
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	110.0	109.6	98.35	102.5	94.30

PSRR D (dB) UNBIASED					
	0k	5k	10k	20k	30k
SN187	141.1	139.5	130.7	125.4	121.6
SN191	146.5	144.5	134.7	126.4	123.2
SN194	128.1	126.9	124.9	121.7	119.4
SN197	127.2	125.2	123.0	122.0	118.0
SN208	134.8	136.4	139.0	137.6	132.0
SN212	123.8	124.5	124.5	124.0	125.3
SN215	138.7	140.6	143.3	134.6	134.6
MIN	127.2	125.2	123.0	121.7	118.0
MAX	146.5	144.5	139.0	137.6	132.0
MEAN	135.5	134.5	130.5	126.6	122.8
STD DEV. (σ)	8.314	8.259	6.662	6.474	5.496
LIM LO	115.0	115.0	115.0	115.0	115.0
K-FACTOR	2.471	2.361	2.321	1.795	1.426
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	96.75	95.96	99.37	96.41	97.19



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101 BRICK KILN ROAD
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AOLA (dB) BIASED					
	0k	5k	10k	20k	30k
SN171	124.2	122.1	120.8	118.1	116.4
SN175	124.0	122.0	120.4	117.8	116.1
SN179	123.9	122.1	120.5	117.7	115.9
SN181	123.5	121.4	120.2	117.4	116.0
SN184	123.9	121.7	120.3	117.7	116.1
SN212	123.9	124.0	123.9	124.0	124.0
SN215	123.8	123.8	124.0	123.8	123.7
MIN	123.5	121.4	120.2	117.4	115.9
MAX	124.2	122.1	120.8	118.1	116.4
MEAN	123.9	121.9	120.4	117.7	116.1
STD DEV. (σ)	0.2550	0.3050	0.2302	0.2510	0.1871
LIM LO	100.0	100.0	100.0	100.0	100.0
K-FACTOR	93.74	71.68	88.79	70.68	86.06
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	122.7	120.4	119.4	116.6	115.2

AOLA (dB) UNBIASED					
	0k	5k	10k	20k	30k
SN187	123.6	121.2	118.5	113.9	111.6
SN191	123.3	121.4	119.1	114.6	112.1
SN194	123.5	121.6	119.2	114.6	112.3
SN197	123.4	121.3	118.6	114.3	111.7
SN208	123.8	121.4	118.7	114.2	111.8
SN212	123.9	124.0	123.9	124.0	124.0
SN215	123.8	123.8	124.0	123.8	123.7
MIN	123.3	121.2	118.5	113.9	111.6
MAX	123.8	121.6	119.2	114.6	112.3
MEAN	123.5	121.4	118.8	114.3	111.9
STD DEV. (σ)	0.1924	0.1483	0.3114	0.2950	0.2915
LIM LO	100.0	100.0	100.0	100.0	100.0
K-FACTOR	122.3	144.1	60.43	48.55	40.82
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	122.6	120.7	117.4	112.9	110.5

AOLB (dB) BIASED					
	0k	5k	10k	20k	30k
SN171	124.4	122.1	120.6	117.9	116.2
SN175	124.3	122.4	120.8	118.1	116.3
SN179	124.0	122.2	120.6	117.7	115.9
SN181	123.9	122.1	120.5	117.8	116.2
SN184	124.0	122.0	120.5	117.8	116.2
SN212	124.2	124.1	124.2	124.0	123.9
SN215	124.1	124.4	124.4	124.1	124.5
MIN	123.9	122.0	120.5	117.7	115.9
MAX	124.4	122.4	120.8	118.1	116.3
MEAN	124.1	122.2	120.6	117.9	116.2
STD DEV. (σ)	0.2168	0.1517	0.1225	0.1517	0.1517
LIM LO	100.0	100.0	100.0	100.0	100.0
K-FACTOR	111.3	146.1	168.2	117.8	106.6
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	123.1	121.5	120.0	117.2	115.5

AOLB (dB) UNBIASED					
	0k	5k	10k	20k	30k
SN187	123.9	121.6	118.9	114.2	111.8
SN191	124.2	121.9	119.8	115.1	112.6
SN194	124.0	121.8	119.3	114.6	112.3
SN197	124.2	121.8	119.0	114.4	112.0
SN208	124.0	121.6	119.1	114.4	111.9
SN212	124.2	124.1	124.2	124.0	123.9
SN215	124.1	124.4	124.4	124.1	124.5
MIN	123.9	121.6	118.9	114.2	111.8
MAX	124.2	121.9	119.8	115.1	112.6
MEAN	124.1	121.7	119.2	114.5	112.1
STD DEV. (σ)	0.1342	0.1342	0.3564	0.3435	0.3271
LIM LO	100.0	100.0	100.0	100.0	100.0
K-FACTOR	179.3	162.0	53.93	42.33	37.05
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	123.4	121.1	117.6	112.9	110.6



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AOLC (dB) BIASED					
	0k	5k	10k	20k	30k
SN171	124.3	122.5	120.9	118.3	116.5
SN175	124.2	122.5	121.0	118.2	116.5
SN179	124.2	122.5	121.2	118.2	116.4
SN181	124.0	122.3	120.8	118.0	116.4
SN184	124.4	122.2	120.6	118.1	116.3
SN212	124.4	124.2	124.5	124.3	124.4
SN215	124.3	124.0	124.1	124.0	124.2
MIN	124.0	122.2	120.6	118.0	116.3
MAX	124.4	122.5	121.2	118.3	116.5
MEAN	124.2	122.4	120.9	118.2	116.4
STD DEV. (σ)	0.1483	0.1414	0.2236	0.1140	0.08367
LIM LO	100.0	100.0	100.0	100.0	100.0
K-FACTOR	163.3	158.4	93.47	159.3	196.3
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	123.5	121.7	119.9	117.6	116.0

AOLC (dB) UNBIASED					
	0k	5k	10k	20k	30k
SN187	124.3	121.8	119.1	114.5	112.1
SN191	124.2	122.1	119.8	115.0	112.4
SN194	124.1	122.1	119.7	115.1	112.8
SN197	123.9	121.6	119.0	114.4	112.0
SN208	123.5	121.0	118.5	113.7	110.6
SN212	124.4	124.2	124.5	124.3	124.4
SN215	124.3	124.0	124.1	124.0	124.2
MIN	123.5	121.0	118.5	113.7	110.6
MAX	124.3	122.1	119.8	115.1	112.8
MEAN	124.0	121.7	119.2	114.5	112.0
STD DEV. (σ)	0.3162	0.4550	0.5357	0.5595	0.8319
LIM LO	100.0	100.0	100.0	100.0	100.0
K-FACTOR	75.89	47.74	35.88	25.99	14.40
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	122.5	119.6	116.7	111.9	108.1

AOLD (dB) BIASED					
	0k	5k	10k	20k	30k
SN171	124.3	122.4	121.0	118.3	116.6
SN175	124.1	122.0	120.4	117.9	116.2
SN179	124.0	122.2	120.7	117.9	116.3
SN181	123.7	121.8	120.5	117.9	116.2
SN184	124.1	122.2	120.5	117.8	116.2
SN212	123.9	123.9	123.9	123.9	124.1
SN215	123.9	123.9	124.3	124.0	124.1
MIN	123.7	121.8	120.4	117.8	116.2
MAX	124.3	122.4	121.0	118.3	116.6
MEAN	124.0	122.1	120.6	118.0	116.3
STD DEV. (σ)	0.2191	0.2280	0.2387	0.1949	0.1732
LIM LO	100.0	100.0	100.0	100.0	100.0
K-FACTOR	109.7	97.00	86.37	92.13	94.11
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	123.0	121.1	119.5	117.1	115.5

AOLD (dB) UNBIASED					
	0k	5k	10k	20k	30k
SN187	123.9	121.4	118.8	114.4	112.0
SN191	123.9	121.8	119.4	114.8	112.2
SN194	123.9	121.4	119.3	114.9	112.6
SN197	123.7	121.3	118.7	114.3	112.0
SN208	124.0	121.5	118.9	114.4	112.0
SN212	123.9	123.9	123.9	123.9	124.1
SN215	123.9	123.9	124.3	124.0	124.1
MIN	123.7	121.3	118.7	114.3	112.0
MAX	124.0	121.8	119.4	114.9	112.6
MEAN	123.9	121.5	119.0	114.6	112.2
STD DEV. (σ)	0.1095	0.1924	0.3114	0.2702	0.2608
LIM LO	100.0	100.0	100.0	100.0	100.0
K-FACTOR	218.0	111.7	61.07	53.89	46.63
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	123.4	120.6	117.6	113.3	110.9



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UGBW A (Hz) BIASED					
	0k	5k	10k	20k	30k
SN171	5.699E+06	5.616E+06	5.572E+06	5.525E+06	5.482E+06
SN175	5.615E+06	5.565E+06	5.507E+06	5.165E+06	5.160E+06
SN179	5.151E+06	5.145E+06	5.120E+06	5.061E+06	5.054E+06
SN181	5.682E+06	5.672E+06	5.637E+06	5.552E+06	5.503E+06
SN184	5.628E+06	5.672E+06	5.548E+06	5.434E+06	5.174E+06
SN212	5.575E+06	5.581E+06	5.605E+06	5.570E+06	5.591E+06
SN215	5.567E+06	5.563E+06	5.563E+06	5.531E+06	5.568E+06
MIN	5.151E+06	5.145E+06	5.120E+06	5.061E+06	5.054E+06
MAX	5.699E+06	5.672E+06	5.637E+06	5.552E+06	5.503E+06
MEAN	5.555E+06	5.534E+06	5.477E+06	5.347E+06	5.275E+06
STD DEV. (σ)	2.286E+05	2.220E+05	2.049E+05	2.215E+05	2.044E+05
LIM LO	3.500E+06	3.500E+06	3.500E+06	3.500E+06	3.500E+06
K-FACTOR	8.990	9.163	9.645	8.342	8.682
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	4.488E+06	4.498E+06	4.521E+06	4.314E+06	4.321E+06

UGBW A (Hz) UNBIASED					
	0k	5k	10k	20k	30k
SN187	5.606E+06	5.565E+06	5.478E+06	5.016E+06	4.866E+06
SN191	5.461E+06	5.178E+06	5.133E+06	4.995E+06	4.835E+06
SN194	5.888E+06	5.876E+06	5.814E+06	5.581E+06	5.156E+06
SN197	5.588E+06	5.539E+06	5.472E+06	5.037E+06	4.834E+06
SN208	5.503E+06	5.495E+06	5.419E+06	5.006E+06	4.829E+06
SN212	5.575E+06	5.581E+06	5.605E+06	5.570E+06	5.591E+06
SN215	5.567E+06	5.563E+06	5.563E+06	5.531E+06	5.568E+06
MIN	5.461E+06	5.178E+06	5.133E+06	4.995E+06	4.829E+06
MAX	5.888E+06	5.876E+06	5.814E+06	5.581E+06	5.156E+06
MEAN	5.609E+06	5.531E+06	5.463E+06	5.127E+06	4.904E+06
STD DEV. (σ)	1.669E+05	2.481E+05	2.420E+05	2.543E+05	1.416E+05
LIM LO	3.500E+06	3.500E+06	3.500E+06	3.500E+06	3.500E+06
K-FACTOR	12.64	8.186	8.111	6.399	9.913
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	4.830E+06	4.373E+06	4.334E+06	3.941E+06	4.243E+06

UGBW B (Hz) BIASED					
	0k	5k	10k	20k	30k
SN171	5.664E+06	5.585E+06	5.551E+06	5.494E+06	5.460E+06
SN175	5.639E+06	5.582E+06	5.543E+06	5.475E+06	5.158E+06
SN179	5.133E+06	5.114E+06	5.092E+06	5.050E+06	5.026E+06
SN181	5.623E+06	5.604E+06	5.582E+06	5.488E+06	5.444E+06
SN184	5.669E+06	5.722E+06	5.581E+06	5.488E+06	5.460E+06
SN212	5.599E+06	5.620E+06	5.629E+06	5.589E+06	5.635E+06
SN215	5.575E+06	5.576E+06	5.568E+06	5.538E+06	5.577E+06
MIN	5.133E+06	5.114E+06	5.092E+06	5.050E+06	5.026E+06
MAX	5.669E+06	5.722E+06	5.582E+06	5.494E+06	5.460E+06
MEAN	5.546E+06	5.521E+06	5.470E+06	5.399E+06	5.310E+06
STD DEV. (σ)	2.314E+05	2.349E+05	2.119E+05	1.952E+05	2.042E+05
LIM LO	3.500E+06	3.500E+06	3.500E+06	3.500E+06	3.500E+06
K-FACTOR	8.840	8.605	9.295	9.727	8.864
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	4.466E+06	4.425E+06	4.481E+06	4.488E+06	4.357E+06

UGBW B (Hz) UNBIASED					
	0k	5k	10k	20k	30k
SN187	5.597E+06	5.545E+06	5.453E+06	4.996E+06	4.840E+06
SN191	5.468E+06	5.165E+06	5.133E+06	4.984E+06	4.838E+06
SN194	5.846E+06	5.801E+06	5.760E+06	5.531E+06	5.128E+06
SN197	5.559E+06	5.526E+06	5.457E+06	5.008E+06	4.822E+06
SN208	5.527E+06	5.496E+06	5.443E+06	5.019E+06	4.847E+06
SN212	5.599E+06	5.620E+06	5.629E+06	5.589E+06	5.635E+06
SN215	5.575E+06	5.576E+06	5.568E+06	5.538E+06	5.577E+06
MIN	5.468E+06	5.165E+06	5.133E+06	4.984E+06	4.822E+06
MAX	5.846E+06	5.801E+06	5.760E+06	5.531E+06	5.128E+06
MEAN	5.599E+06	5.507E+06	5.449E+06	5.108E+06	4.895E+06
STD DEV. (σ)	1.457E+05	2.266E+05	2.218E+05	2.370E+05	1.306E+05
LIM LO	3.500E+06	3.500E+06	3.500E+06	3.500E+06	3.500E+06
K-FACTOR	14.41	8.857	8.790	6.782	10.68
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	4.919E+06	4.449E+06	4.415E+06	4.002E+06	4.286E+06



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UGBW C (Hz) BIASED					
	0k	5k	10k	20k	30k
SN171	5.694E+06	5.591E+06	5.563E+06	5.523E+06	5.483E+06
SN175	5.634E+06	5.574E+06	5.523E+06	5.467E+06	5.156E+06
SN179	5.139E+06	5.138E+06	5.099E+06	5.071E+06	5.049E+06
SN181	5.594E+06	5.573E+06	5.541E+06	5.464E+06	5.423E+06
SN184	5.627E+06	5.682E+06	5.550E+06	5.434E+06	5.160E+06
SN212	5.589E+06	5.610E+06	5.590E+06	5.576E+06	5.603E+06
SN215	5.575E+06	5.581E+06	5.571E+06	5.529E+06	5.572E+06
MIN	5.139E+06	5.138E+06	5.099E+06	5.071E+06	5.049E+06
MAX	5.694E+06	5.682E+06	5.563E+06	5.523E+06	5.483E+06
MEAN	5.538E+06	5.512E+06	5.455E+06	5.392E+06	5.254E+06
STD DEV. (σ)	2.257E+05	2.136E+05	1.997E+05	1.822E+05	1.881E+05
LIM LO	3.500E+06	3.500E+06	3.500E+06	3.500E+06	3.500E+06
K-FACTOR	9.027	9.416	9.793	10.38	9.328
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	4.484E+06	4.515E+06	4.524E+06	4.542E+06	4.377E+06

UGBW C (Hz) UNBIASED					
	0k	5k	10k	20k	30k
SN187	5.572E+06	5.523E+06	5.435E+06	4.989E+06	4.834E+06
SN191	5.439E+06	5.172E+06	5.132E+06	4.971E+06	4.822E+06
SN194	5.896E+06	5.889E+06	5.810E+06	5.589E+06	5.159E+06
SN197	5.530E+06	5.475E+06	5.408E+06	4.974E+06	4.772E+06
SN208	5.558E+06	5.532E+06	5.485E+06	5.049E+06	4.883E+06
SN212	5.589E+06	5.610E+06	5.590E+06	5.576E+06	5.603E+06
SN215	5.575E+06	5.581E+06	5.571E+06	5.529E+06	5.572E+06
MIN	5.439E+06	5.172E+06	5.132E+06	4.971E+06	4.772E+06
MAX	5.896E+06	5.889E+06	5.810E+06	5.589E+06	5.159E+06
MEAN	5.599E+06	5.518E+06	5.454E+06	5.114E+06	4.894E+06
STD DEV. (σ)	1.739E+05	2.547E+05	2.418E+05	2.672E+05	1.533E+05
LIM LO	3.500E+06	3.500E+06	3.500E+06	3.500E+06	3.500E+06
K-FACTOR	12.07	7.925	8.081	6.043	9.093
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	4.788E+06	4.330E+06	4.326E+06	3.868E+06	4.179E+06

UGBW D (Hz) BIASED					
	0k	5k	10k	20k	30k
SN171	5.674E+06	5.600E+06	5.540E+06	5.516E+06	5.478E+06
SN175	5.610E+06	5.560E+06	5.514E+06	5.448E+06	5.159E+06
SN179	5.145E+06	5.144E+06	5.118E+06	5.075E+06	5.074E+06
SN181	5.667E+06	5.677E+06	5.648E+06	5.540E+06	5.514E+06
SN184	5.676E+06	5.716E+06	5.580E+06	5.490E+06	5.473E+06
SN212	5.589E+06	5.603E+06	5.617E+06	5.586E+06	5.624E+06
SN215	5.589E+06	5.594E+06	5.569E+06	5.552E+06	5.591E+06
MIN	5.145E+06	5.144E+06	5.118E+06	5.075E+06	5.074E+06
MAX	5.676E+06	5.716E+06	5.648E+06	5.540E+06	5.514E+06
MEAN	5.554E+06	5.539E+06	5.480E+06	5.414E+06	5.340E+06
STD DEV. (σ)	2.305E+05	2.294E+05	2.086E+05	1.924E+05	2.065E+05
LIM LO	3.500E+06	3.500E+06	3.500E+06	3.500E+06	3.500E+06
K-FACTOR	8.914	8.889	9.493	9.945	8.910
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	4.479E+06	4.469E+06	4.507E+06	4.516E+06	4.376E+06

UGBW D (Hz) UNBIASED					
	0k	5k	10k	20k	30k
SN187	5.616E+06	5.566E+06	5.482E+06	5.023E+06	4.867E+06
SN191	5.445E+06	5.154E+06	5.127E+06	4.965E+06	4.821E+06
SN194	5.866E+06	5.862E+06	5.817E+06	5.585E+06	5.161E+06
SN197	5.599E+06	5.550E+06	5.484E+06	5.036E+06	4.841E+06
SN208	5.513E+06	5.513E+06	5.447E+06	5.015E+06	4.848E+06
SN212	5.589E+06	5.603E+06	5.617E+06	5.586E+06	5.624E+06
SN215	5.589E+06	5.594E+06	5.569E+06	5.552E+06	5.591E+06
MIN	5.445E+06	5.154E+06	5.127E+06	4.965E+06	4.821E+06
MAX	5.866E+06	5.862E+06	5.817E+06	5.585E+06	5.161E+06
MEAN	5.608E+06	5.529E+06	5.471E+06	5.125E+06	4.908E+06
STD DEV. (σ)	1.599E+05	2.518E+05	2.444E+05	2.587E+05	1.426E+05
LIM LO	3.500E+06	3.500E+06	3.500E+06	3.500E+06	3.500E+06
K-FACTOR	13.18	8.059	8.066	6.282	9.870
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	4.862E+06	4.354E+06	4.331E+06	3.918E+06	4.242E+06



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Voh A (volts) BIASED					
	0k	5k	10k	20k	30k
SN171	13.22	13.20	13.19	13.16	13.15
SN175	13.21	13.19	13.17	13.15	13.13
SN179	13.22	13.20	13.18	13.16	13.15
SN181	13.22	13.20	13.18	13.15	13.14
SN184	13.21	13.19	13.17	13.15	13.14
SN212	13.21	13.21	13.21	13.21	13.21
SN215	13.21	13.21	13.21	13.21	13.21
MIN	13.21	13.19	13.17	13.15	13.13
MAX	13.22	13.20	13.19	13.16	13.15
MEAN	13.22	13.20	13.18	13.15	13.14
STD DEV. (σ)	5.477E-03	5.477E-03	8.367E-03	5.477E-03	8.367E-03
LIM LO	12.00	12.00	12.00	12.00	12.00
K-FACTOR	222.0	218.4	140.8	210.7	136.5
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	13.19	13.17	13.14	13.13	13.10

Voh A (volts) UNBIASED					
	0k	5k	10k	20k	30k
SN187	13.21	13.19	13.16	13.11	13.10
SN191	13.21	13.18	13.16	13.11	13.09
SN194	13.20	13.18	13.16	13.11	13.09
SN197	13.21	13.19	13.16	13.11	13.10
SN208	13.21	13.19	13.16	13.11	13.10
SN212	13.21	13.21	13.21	13.21	13.21
SN215	13.21	13.21	13.21	13.21	13.21
MIN	13.20	13.18	13.16	13.11	13.09
MAX	13.21	13.19	13.16	13.11	13.10
MEAN	13.21	13.19	13.16	13.11	13.10
STD DEV. (σ)	4.472E-03	5.477E-03	0.000E+00	0.000E+00	5.477E-03
LIM LO	12.00	12.00	12.00	12.00	12.00
K-FACTOR	270.1	216.5	NA	NA	200.1
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	13.19	13.16	13.16	13.11	13.07

Voh B (volts) BIASED					
	0k	5k	10k	20k	30k
SN171	13.21	13.19	13.18	13.15	13.14
SN175	13.21	13.19	13.17	13.15	13.13
SN179	13.22	13.20	13.19	13.16	13.15
SN181	13.22	13.20	13.18	13.16	13.15
SN184	13.21	13.18	13.17	13.14	13.13
SN212	13.20	13.20	13.20	13.20	13.20
SN215	13.20	13.20	13.21	13.20	13.21
MIN	13.21	13.18	13.17	13.14	13.13
MAX	13.22	13.20	13.19	13.16	13.15
MEAN	13.21	13.19	13.18	13.15	13.14
STD DEV. (σ)	5.477E-03	8.367E-03	8.367E-03	8.367E-03	1.000E-02
LIM LO	12.00	12.00	12.00	12.00	12.00
K-FACTOR	221.6	142.5	140.8	137.7	114.0
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	13.19	13.15	13.14	13.11	13.09

Voh B (volts) UNBIASED					
	0k	5k	10k	20k	30k
SN187	13.22	13.19	13.16	13.12	13.10
SN191	13.21	13.18	13.16	13.11	13.09
SN194	13.20	13.18	13.16	13.11	13.09
SN197	13.21	13.19	13.16	13.12	13.10
SN208	13.21	13.18	13.16	13.11	13.09
SN212	13.20	13.20	13.20	13.20	13.20
SN215	13.20	13.20	13.21	13.20	13.21
MIN	13.20	13.18	13.16	13.11	13.09
MAX	13.22	13.19	13.16	13.12	13.10
MEAN	13.21	13.18	13.16	13.11	13.09
STD DEV. (σ)	7.071E-03	5.477E-03	0.000E+00	5.477E-03	5.477E-03
LIM LO	12.00	12.00	12.00	12.00	12.00
K-FACTOR	171.1	216.2	NA	203.4	199.7
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	13.18	13.16	13.16	13.09	13.07



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Voh C (volts) BIASED					
	0k	5k	10k	20k	30k
SN171	13.22	13.20	13.18	13.16	13.14
SN175	13.21	13.19	13.18	13.15	13.14
SN179	13.22	13.21	13.19	13.16	13.15
SN181	13.23	13.21	13.19	13.17	13.16
SN184	13.21	13.19	13.17	13.15	13.14
SN212	13.21	13.21	13.21	13.21	13.21
SN215	13.21	13.21	13.21	13.21	13.21
MIN	13.21	13.19	13.17	13.15	13.14
MAX	13.23	13.21	13.19	13.17	13.16
MEAN	13.22	13.20	13.18	13.16	13.15
STD DEV. (σ)	8.367E-03	0.01000	8.367E-03	8.367E-03	8.944E-03
LIM LO	12.00	12.00	12.00	12.00	12.00
K-FACTOR	145.6	120.0	141.3	138.4	128.1
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	13.18	13.15	13.14	13.12	13.10

Voh C (volts) UNBIASED					
	0k	5k	10k	20k	30k
SN187	13.22	13.20	13.17	13.12	13.11
SN191	13.22	13.19	13.17	13.12	13.10
SN194	13.21	13.18	13.16	13.11	13.09
SN197	13.22	13.20	13.17	13.12	13.11
SN208	13.21	13.19	13.16	13.11	13.10
SN212	13.21	13.21	13.21	13.21	13.21
SN215	13.21	13.21	13.21	13.21	13.21
MIN	13.21	13.18	13.16	13.11	13.09
MAX	13.22	13.20	13.17	13.12	13.11
MEAN	13.22	13.19	13.17	13.12	13.10
STD DEV. (σ)	5.477E-03	8.367E-03	5.477E-03	5.477E-03	8.367E-03
LIM LO	12.00	12.00	12.00	12.00	12.00
K-FACTOR	222.0	142.5	212.9	203.8	131.7
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	13.19	13.15	13.14	13.09	13.06

Voh D (volts) BIASED					
	0k	5k	10k	20k	30k
SN171	13.22	13.20	13.19	13.16	13.15
SN175	13.21	13.19	13.17	13.15	13.14
SN179	13.22	13.20	13.19	13.16	13.15
SN181	13.22	13.20	13.19	13.16	13.15
SN184	13.21	13.19	13.18	13.15	13.14
SN212	13.21	13.21	13.21	13.21	13.21
SN215	13.21	13.21	13.21	13.21	13.21
MIN	13.21	13.19	13.17	13.15	13.14
MAX	13.22	13.20	13.19	13.16	13.15
MEAN	13.22	13.20	13.18	13.16	13.15
STD DEV. (σ)	5.477E-03	5.477E-03	8.944E-03	5.477E-03	5.477E-03
LIM LO	12.00	12.00	12.00	12.00	12.00
K-FACTOR	222.0	218.4	132.4	211.1	209.2
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	13.19	13.17	13.14	13.13	13.12

Voh D (volts) UNBIASED					
	0k	5k	10k	20k	30k
SN187	13.21	13.19	13.16	13.12	13.10
SN191	13.21	13.19	13.17	13.12	13.10
SN194	13.21	13.18	13.16	13.11	13.10
SN197	13.21	13.19	13.16	13.12	13.10
SN208	13.21	13.19	13.16	13.11	13.09
SN212	13.21	13.21	13.21	13.21	13.21
SN215	13.21	13.21	13.21	13.21	13.21
MIN	13.21	13.18	13.16	13.11	13.09
MAX	13.21	13.19	13.17	13.12	13.10
MEAN	13.21	13.19	13.16	13.12	13.10
STD DEV. (σ)	1.986E-15	4.472E-03	4.472E-03	5.477E-03	4.472E-03
LIM LO	12.00	12.00	12.00	12.00	12.00
K-FACTOR	6.093E+14	265.6	259.8	203.8	245.5
KTL	4.666	4.666	4.666	4.666	4.666
MEAN-KTL (σ)	13.21	13.17	13.14	13.09	13.08



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Vol A (volts) BIASED					
	0k	5k	10k	20k	30k
SN171	-13.35	-13.34	-13.32	-13.28	-13.24
SN175	-13.34	-13.32	-13.30	-13.26	-13.22
SN179	-13.34	-13.32	-13.30	-13.25	-13.22
SN181	-13.30	-13.27	-13.26	-13.20	-13.16
SN184	-13.34	-13.32	-13.31	-13.26	-13.22
SN212	-13.34	-13.34	-13.35	-13.34	-13.35
SN215	-13.34	-13.34	-13.34	-13.33	-13.34
MIN	-13.35	-13.34	-13.32	-13.28	-13.24
MAX	-13.30	-13.27	-13.26	-13.20	-13.16
MEAN	-13.33	-13.31	-13.30	-13.25	-13.21
STD DEV. (σ)	0.01949	0.02608	0.02280	0.03000	0.03033
LIM HI	-12.00	-12.00	-12.00	-12.00	-12.00
K-FACTOR	68.43	50.39	56.92	41.67	39.96
KTL	4.666	4.666	4.666	4.666	4.666
MEAN+KTL (σ)	-13.24	-13.19	-13.19	-13.11	-13.07

Vol A (volts) UNBIASED					
	0k	5k	10k	20k	30k
SN187	-13.32	-13.29	-13.27	-13.20	-13.16
SN191	-13.34	-13.32	-13.30	-13.25	-13.21
SN194	-13.33	-13.31	-13.29	-13.23	-13.19
SN197	-13.31	-13.29	-13.27	-13.21	-13.16
SN208	-13.35	-13.33	-13.31	-13.25	-13.21
SN212	-13.34	-13.34	-13.35	-13.34	-13.35
SN215	-13.34	-13.34	-13.34	-13.33	-13.34
MIN	-13.35	-13.33	-13.31	-13.25	-13.21
MAX	-13.31	-13.29	-13.27	-13.20	-13.16
MEAN	-13.33	-13.31	-13.29	-13.23	-13.19
STD DEV. (σ)	0.01581	0.01789	0.01789	0.02280	0.02510
LIM HI	-12.00	-12.00	-12.00	-12.00	-12.00
K-FACTOR	84.12	73.12	72.00	53.85	47.25
KTL	4.666	4.666	4.666	4.666	4.666
MEAN+KTL (σ)	-13.26	-13.22	-13.20	-13.12	-13.07

Vol B (volts) BIASED					
	0k	5k	10k	20k	30k
SN171	-13.34	-13.32	-13.30	-13.26	-13.23
SN175	-13.33	-13.32	-13.30	-13.26	-13.22
SN179	-13.33	-13.31	-13.30	-13.25	-13.22
SN181	-13.30	-13.28	-13.26	-13.21	-13.17
SN184	-13.34	-13.32	-13.30	-13.25	-13.22
SN212	-13.33	-13.33	-13.34	-13.33	-13.34
SN215	-13.33	-13.33	-13.33	-13.33	-13.33
MIN	-13.34	-13.32	-13.30	-13.26	-13.23
MAX	-13.30	-13.28	-13.26	-13.21	-13.17
MEAN	-13.33	-13.31	-13.29	-13.25	-13.21
STD DEV. (σ)	0.01643	0.01732	0.01789	0.02074	0.02387
LIM HI	-12.00	-12.00	-12.00	-12.00	-12.00
K-FACTOR	80.82	75.63	72.22	60.09	50.77
KTL	4.666	4.666	4.666	4.666	4.666
MEAN+KTL (σ)	-13.25	-13.23	-13.21	-13.15	-13.10

Vol B (volts) UNBIASED					
	0k	5k	10k	20k	30k
SN187	-13.31	-13.29	-13.26	-13.20	-13.16
SN191	-13.33	-13.30	-13.29	-13.23	-13.19
SN194	-13.32	-13.30	-13.29	-13.23	-13.19
SN197	-13.31	-13.29	-13.26	-13.20	-13.16
SN208	-13.33	-13.31	-13.29	-13.24	-13.20
SN212	-13.33	-13.33	-13.34	-13.33	-13.34
SN215	-13.33	-13.33	-13.33	-13.33	-13.33
MIN	-13.33	-13.31	-13.29	-13.24	-13.20
MAX	-13.31	-13.29	-13.26	-13.20	-13.16
MEAN	-13.32	-13.30	-13.28	-13.22	-13.18
STD DEV. (σ)	1.000E-02	8.367E-03	0.01643	0.01871	0.01871
LIM HI	-12.00	-12.00	-12.00	-12.00	-12.00
K-FACTOR	132.0	155.1	77.78	65.21	63.07
KTL	4.666	4.666	4.666	4.666	4.666
MEAN+KTL (σ)	-13.27	-13.26	-13.20	-13.13	-13.09



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Vol C (volts) BIASED					
	0k	5k	10k	20k	30k
SN171	-13.35	-13.33	-13.32	-13.28	-13.24
SN175	-13.34	-13.32	-13.31	-13.26	-13.23
SN179	-13.33	-13.32	-13.30	-13.26	-13.22
SN181	-13.30	-13.28	-13.27	-13.21	-13.18
SN184	-13.34	-13.32	-13.30	-13.25	-13.22
SN212	-13.34	-13.34	-13.35	-13.34	-13.34
SN215	-13.34	-13.34	-13.34	-13.33	-13.34
MIN	-13.35	-13.33	-13.32	-13.28	-13.24
MAX	-13.30	-13.28	-13.27	-13.21	-13.18
MEAN	-13.33	-13.31	-13.30	-13.25	-13.22
STD DEV. (σ)	0.01924	0.01949	0.01871	0.02588	0.02280
LIM HI	-12.00	-12.00	-12.00	-12.00	-12.00
K-FACTOR	69.25	67.41	69.49	48.37	53.41
KTL	4.666	4.666	4.666	4.666	4.666
MEAN+KTL (σ)	-13.24	-13.22	-13.21	-13.13	-13.11

Vol C (volts) UNBIASED					
	0k	5k	10k	20k	30k
SN187	-13.32	-13.29	-13.27	-13.21	-13.17
SN191	-13.33	-13.31	-13.30	-13.24	-13.20
SN194	-13.33	-13.31	-13.29	-13.24	-13.20
SN197	-13.32	-13.30	-13.27	-13.21	-13.17
SN208	-13.34	-13.32	-13.30	-13.24	-13.20
SN212	-13.34	-13.34	-13.35	-13.34	-13.34
SN215	-13.34	-13.34	-13.34	-13.33	-13.34
MIN	-13.34	-13.32	-13.30	-13.24	-13.20
MAX	-13.32	-13.29	-13.27	-13.21	-13.17
MEAN	-13.33	-13.31	-13.29	-13.23	-13.19
STD DEV. (σ)	8.367E-03	0.01140	0.01517	0.01643	0.01643
LIM HI	-12.00	-12.00	-12.00	-12.00	-12.00
K-FACTOR	158.7	114.5	84.80	74.73	72.30
KTL	4.666	4.666	4.666	4.666	4.666
MEAN+KTL (σ)	-13.29	-13.25	-13.22	-13.15	-13.11

Vol D (volts) BIASED					
	0k	5k	10k	20k	30k
SN171	-13.36	-13.34	-13.32	-13.28	-13.25
SN175	-13.35	-13.33	-13.31	-13.27	-13.23
SN179	-13.34	-13.32	-13.31	-13.26	-13.23
SN181	-13.30	-13.28	-13.26	-13.21	-13.17
SN184	-13.35	-13.33	-13.31	-13.27	-13.23
SN212	-13.35	-13.35	-13.35	-13.35	-13.35
SN215	-13.34	-13.34	-13.34	-13.34	-13.34
MIN	-13.36	-13.34	-13.32	-13.28	-13.25
MAX	-13.30	-13.28	-13.26	-13.21	-13.17
MEAN	-13.34	-13.32	-13.30	-13.26	-13.22
STD DEV. (σ)	0.02345	0.02345	0.02387	0.02775	0.03033
LIM HI	-12.00	-12.00	-12.00	-12.00	-12.00
K-FACTOR	57.14	56.28	54.53	45.34	40.29
KTL	4.666	4.666	4.666	4.666	4.666
MEAN+KTL (σ)	-13.23	-13.21	-13.19	-13.13	-13.08

Vol D (volts) UNBIASED					
	0k	5k	10k	20k	30k
SN187	-13.32	-13.29	-13.27	-13.20	-13.16
SN191	-13.34	-13.32	-13.31	-13.25	-13.21
SN194	-13.34	-13.32	-13.30	-13.25	-13.21
SN197	-13.32	-13.29	-13.27	-13.21	-13.17
SN208	-13.34	-13.32	-13.30	-13.25	-13.20
SN212	-13.35	-13.35	-13.35	-13.35	-13.35
SN215	-13.34	-13.34	-13.34	-13.34	-13.34
MIN	-13.34	-13.32	-13.31	-13.25	-13.21
MAX	-13.32	-13.29	-13.27	-13.20	-13.16
MEAN	-13.33	-13.31	-13.29	-13.23	-13.19
STD DEV. (σ)	0.01095	0.01643	0.01871	0.02490	0.02345
LIM HI	-12.00	-12.00	-12.00	-12.00	-12.00
K-FACTOR	121.6	79.60	68.95	49.48	50.74
KTL	4.666	4.666	4.666	4.666	4.666
MEAN+KTL (σ)	-13.28	-13.23	-13.20	-13.12	-13.08



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VPTRAD
 BUILDING 2 UNIT 3
 101 BRICK KILN ROAD
 CHELMSFORD, MA 01824

Iccq (Amps) BIASED					
	0k	5k	10k	20k	30k
SN171	7.683E-03	7.664E-03	7.799E-03	7.835E-03	7.870E-03
SN175	7.608E-03	7.710E-03	7.820E-03	7.854E-03	7.763E-03
SN179	7.333E-03	7.359E-03	7.438E-03	7.577E-03	7.579E-03
SN181	7.625E-03	7.775E-03	7.847E-03	7.870E-03	7.901E-03
SN184	7.694E-03	7.878E-03	7.776E-03	7.884E-03	7.880E-03
SN212	7.732E-03	7.737E-03	7.737E-03	7.729E-03	7.735E-03
SN215	7.638E-03	7.696E-03	7.607E-03	7.598E-03	7.632E-03
MIN	7.333E-03	7.359E-03	7.438E-03	7.577E-03	7.579E-03
MAX	7.694E-03	7.878E-03	7.847E-03	7.884E-03	7.901E-03
MEAN	7.589E-03	7.677E-03	7.736E-03	7.804E-03	7.799E-03
STD DEV. (σ)	1.475E-04	1.952E-04	1.686E-04	1.282E-04	1.339E-04
LIM HI	0.01100	0.01100	0.01100	0.01100	0.01100
K-FACTOR	23.12	17.02	19.36	24.93	23.91
KTL	4.666	4.666	4.666	4.666	4.666
MEAN+KTL (σ)	8.277E-03	8.588E-03	8.523E-03	8.402E-03	8.423E-03

Iccq (Amps) UNBIASED					
	0k	5k	10k	20k	30k
SN187	7.678E-03	7.730E-03	7.837E-03	7.835E-03	7.620E-03
SN191	7.651E-03	7.752E-03	7.822E-03	7.786E-03	7.770E-03
SN194	7.915E-03	8.024E-03	8.022E-03	8.109E-03	7.935E-03
SN197	7.680E-03	7.796E-03	7.820E-03	7.822E-03	7.647E-03
SN208	7.759E-03	7.780E-03	7.852E-03	7.964E-03	7.767E-03
SN212	7.732E-03	7.737E-03	7.737E-03	7.729E-03	7.735E-03
SN215	7.638E-03	7.696E-03	7.607E-03	7.598E-03	7.632E-03
MIN	7.651E-03	7.730E-03	7.820E-03	7.786E-03	7.620E-03
MAX	7.915E-03	8.024E-03	8.022E-03	8.109E-03	7.935E-03
MEAN	7.737E-03	7.816E-03	7.871E-03	7.903E-03	7.748E-03
STD DEV. (σ)	1.076E-04	1.188E-04	8.561E-05	1.333E-04	1.249E-04
LIM HI	0.01100	0.01100	0.01100	0.01100	0.01100
K-FACTOR	30.33	26.80	36.55	23.24	26.04
KTL	4.666	4.666	4.666	4.666	4.666
MEAN+KTL (σ)	8.239E-03	8.371E-03	8.270E-03	8.525E-03	8.331E-03



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VPTRAD
BUILDING 2 UNIT 3
101 BRICK KILN ROAD
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APPENDIX C: TRAVELLER

TRAVELLER REDACTED DUE TO SENSITIVE INFORMATION



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VPTRAD
BUILDING 2 UNIT 3
101 BRICK KILN ROAD
CHELMSFORD, MA 01824

APPENDIX D: CERTIFICATE OF EXPOSURE

CERTIFICATE REDACTED DUE TO SENSITIVE INFORMATION



APPENDIX E: CERTIFICATE OF CONFORMANCE

Certificate of Conformance

This document certifies that the testing and irradiation of the parts listed below was performed in accordance with the customers Statement of Work (SOW) and with the requirements of MIL-STD-883/750, as applicable.

Customer:	[REDACTED]
VPT Rad Job Number	[REDACTED]
P.O. Number	[REDACTED]
Part Number:	5962R8856501V2A/OP470
Statement of Work:	[REDACTED]
Date Code:	[REDACTED]
Lot Number:	[REDACTED]
Radiation Levels:	5k, 10k, 20, 30 KRAD(SI)
Number of Devices Under Test (DUT):	10
Test Date Completion:	[REDACTED]

Ruben Perez, Quality Assurance Administrator

[REDACTED]
Date