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VOLUME 4 — APPENDIX C

ELECTRICAL EVALUATION OF RCA MWS5001D RANDOM ACCESS MEMORY

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JUNE 1979

AEROSPACE GROUPS

HUGHES

HUGHES AIRCRAFT COMPANY
CULVER CITY, CALIFORNIA

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AUTHOR(S) A. Klute

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ELECTRICAL EVALUATION OF RCA MWS5001D RANDOM ACCESS MEMORY

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AEROSPACE GROUPS

Hughes Aircraft Company • Culver City, California

APPENDIX C

STATISTICAL DATA

INITIAL DATA

INITIAL DATA

ADDRESS ACCESS TIME (TAA) AT 25 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	125.NS	105.NS	95.0NS
5	160.NS	130.NS	110.NS
6	215.NS	160.NS	130.NS
7	155.NS	125.NS	115.NS
8	185.NS	135.NS	115.NS
9	160.NS	125.NS	110.NS
10	155.NS	125.NS	110.NS
11	160.NS	120.NS	105.NS
12	95.0NS	85.0NS	80.0NS
13	165.NS	125.NS	110.NS
14	185.NS	145.NS	125.NS
15	105.NS	95.0NS	85.0NS
16	215.NS	155.NS	125.NS
17	170.NS	135.NS	120.NS
18	155.NS	125.NS	110.NS
19	195.NS	145.NS	125.NS
20	150.NS	120.NS	105.NS
21	220.NS	175.NS	150.NS
22	205.NS	155.NS	135.NS
23	165.NS	130.NS	115.NS
24	140.NS	115.NS	105.NS
25	175.NS	145.NS	125.NS
26	150.NS	120.NS	105.NS
27	165.NS	135.NS	115.NS
28	185.NS	140.NS	125.NS
29	165.NS	130.NS	115.NS
30	145.NS	120.NS	105.NS
31	155.NS	125.NS	110.NS
32	235.NS	180.NS	1.00KS *
33	170.NS	135.NS	120.NS
34	215.NS	175.NS	150.NS
35	105.NS	95.0NS	90.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	169.NS	133.NS	115.NS
STD DEV	33.1NS	22.0NS	15.5NS
MEDIAN	165.NS	130.NS	115.NS
MIN VALUE	95.0NS	85.0NS	80.0NS
MAX VALUE	235.NS	180.NS	150.NS
NUMBER	30	30	29

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INITIAL DATA

DATA SETUP TIME (TDS) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	16.0NS	14.0NS	14.0NS
5	20.0NS	16.0NS	14.0NS
6	14.0NS	12.0NS	12.0NS
7	10.0NS	10.0NS	14.0NS
8	14.0NS	12.0NS	12.0NS
9	10.0NS	12.0NS	14.0NS
10	20.0NS	16.0NS	14.0NS
11	12.0NS	10.0NS	12.0NS
12	14.0NS	12.0NS	12.0NS
13	16.0NS	14.0NS	12.0NS
14	20.0NS	16.0NS	14.0NS
15	8.00NS	8.00NS	10.0NS
16	14.0NS	14.0NS	16.0NS
17	20.0NS	14.0NS	14.0NS
18	20.0NS	18.0NS	16.0NS
19	14.0NS	14.0NS	16.0NS
20	12.0NS	12.0NS	10.0NS
21	20.0NS	16.0NS	16.0NS
22	14.0NS	12.0NS	12.0NS
23	12.0NS	10.0NS	14.0NS
24	8.00NS	8.00NS	8.00NS
25	26.0NS	20.0NS	20.0NS
26	12.0NS	12.0NS	10.0NS
27	14.0NS	12.0NS	12.0NS
28	14.0NS	14.0NS	14.0NS
29	20.0NS	16.0NS	14.0NS
30	14.0NS	12.0NS	12.0NS
31	10.0NS	10.0NS	12.0NS
32	22.0NS	18.0NS	16.0NS
33	18.0NS	16.0NS	14.0NS
34	14.0NS	12.0NS	14.0NS
35	14.0NS	12.0NS	10.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	15.0NS	13.1NS	13.2NS
STD DEV	4.28NS	2.86NS	2.40NS
MEDIAN	14.0NS	12.0NS	14.0NS
MIN VALUE	8.00NS	8.00NS	8.00NS
MAX VALUE	26.0NS	20.0NS	20.0NS
NUMBER	30	30	30

INITIAL DATA

DATA HOLD TIME (TDH) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	12.0NS	14.0NS	16.0NS
5	14.0NS	18.0NS	20.0NS
6	20.0NS	22.0NS	26.0NS
7	18.0NS	20.0NS	24.0NS
8	18.0NS	22.0NS	22.0NS
9	18.0NS	20.0NS	24.0NS
10	14.0NS	16.0NS	18.0NS
11	14.0NS	18.0NS	20.0NS
12	12.0NS	14.0NS	18.0NS
13	14.0NS	16.0NS	20.0NS
14	14.0NS	18.0NS	20.0NS
15	16.0NS	18.0NS	20.0NS
16	18.0NS	22.0NS	26.0NS
17	18.0NS	18.0NS	22.0NS
18	14.0NS	18.0NS	20.0NS
19	18.0NS	22.0NS	26.0NS
20	16.0NS	18.0NS	22.0NS
21	18.0NS	20.0NS	26.0NS
22	18.0NS	22.0NS	26.0NS
23	18.0NS	20.0NS	24.0NS
24	18.0NS	20.0NS	26.0NS
25	14.0NS	18.0NS	20.0NS
26	14.0NS	18.0NS	20.0NS
27	18.0NS	20.0NS	26.0NS
28	18.0NS	20.0NS	22.0NS
29	14.0NS	18.0NS	20.0NS
30	14.0NS	16.0NS	20.0NS
31	18.0NS	20.0NS	26.0NS
32	22.0NS	24.0NS	28.0NS
33	14.0NS	18.0NS	20.0NS
34	14.0NS	16.0NS	20.0NS
35	14.0NS	18.0NS	18.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	16.3NS	19.0NS	22.3NS
STD DEV	2.35NS	2.24NS	2.97NS
MEDIAN	17.0NS	18.0NS	22.0NS
MIN VALUE	12.0NS	14.0NS	18.0NS
MAX VALUE	22.0NS	24.0NS	28.0NS
NUMBER	30	30	30

INITIAL DATA

WRITE PULSE WIDTH (TWP) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	48.0NS	44.0NS	40.0NS
5	54.0NS	46.0NS	40.0NS
6	46.0NS	40.0NS	38.0NS
7	42.0NS	38.0NS	36.0NS
8	40.0NS	36.0NS	32.0NS
9	40.0NS	38.0NS	32.0NS
10	54.0NS	46.0NS	40.0NS
11	40.0NS	36.0NS	32.0NS
12	46.0NS	46.0NS	40.0NS
13	40.0NS	38.0NS	32.0NS
14	52.0NS	44.0NS	38.0NS
15	40.0NS	38.0NS	38.0NS
16	46.0NS	42.0NS	38.0NS
17	52.0NS	46.0NS	38.0NS
18	54.0NS	46.0NS	44.0NS
19	52.0NS	46.0NS	40.0NS
20	44.0NS	38.0NS	36.0NS
21	56.0NS	54.0NS	46.0NS
22	46.0NS	38.0NS	38.0NS
23	40.0NS	38.0NS	36.0NS
24	38.0NS	34.0NS	30.0NS
25	56.0NS	54.0NS	46.0NS
26	40.0NS	38.0NS	32.0NS
27	46.0NS	38.0NS	36.0NS
28	46.0NS	38.0NS	38.0NS
29	54.0NS	46.0NS	40.0NS
30	46.0NS	40.0NS	38.0NS
31	40.0NS	38.0NS	32.0NS
32	64.0NS	56.0NS	62.0NS
33	52.0NS	46.0NS	40.0NS
34	48.0NS	44.0NS	40.0NS
35	46.0NS	40.0NS	38.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	46.9NS	42.0NS	38.2NS
STD DEV	6.36NS	5.56NS	5.94NS
MEDIAN	46.0NS	40.0NS	38.0NS
MIN VALUE	38.0NS	34.0NS	30.0NS
MAX VALUE	64.0NS	56.0NS	62.0NS
NUMBER	30	30	30

INITIAL DATA

ADDRESS SETUP TIME (TAS) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	18.0NS	16.0NS	18.0NS
5	24.0NS	20.0NS	22.0NS
6	44.0NS	30.0NS	26.0NS
7	28.0NS	24.0NS	22.0NS
8	36.0NS	26.0NS	22.0NS
9	32.0NS	24.0NS	24.0NS
10	24.0NS	20.0NS	20.0NS
11	30.0NS	22.0NS	20.0NS
12	16.0NS	16.0NS	16.0NS
13	28.0NS	20.0NS	20.0NS
14	30.0NS	24.0NS	22.0NS
15	16.0NS	16.0NS	16.0NS
16	44.0NS	32.0NS	26.0NS
17	28.0NS	22.0NS	22.0NS
18	24.0NS	20.0NS	22.0NS
19	42.0NS	30.0NS	26.0NS
20	24.0NS	20.0NS	20.0NS
21	30.0NS	24.0NS	26.0NS
22	42.0NS	32.0NS	28.0NS
23	32.0NS	26.0NS	24.0NS
24	24.0NS	20.0NS	20.0NS
25	26.0NS	24.0NS	24.0NS
26	28.0NS	22.0NS	20.0NS
27	28.0NS	24.0NS	22.0NS
28	32.0NS	24.0NS	22.0NS
29	26.0NS	22.0NS	20.0NS
30	22.0NS	20.0NS	20.0NS
31	30.0NS	24.0NS	24.0NS
32	38.0NS	30.0NS	30.0NS
33	26.0NS	22.0NS	22.0NS
34	72.0NS *	58.0NS	54.0NS
35	18.0NS	18.0NS	18.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	30.7NS	24.5NS	23.3NS
STD DEV	10.6NS	7.46NS	6.52NS
MEDIAN	28.0NS	24.0NS	22.0NS
MIN VALUE	16.0NS	16.0NS	16.0NS
MAX VALUE	72.0NS	58.0NS	54.0NS
NUMBER	30	30	30

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INITIAL DATA

ADDRESS HOLD TIME (TAH) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	-6.00NS	-4.00NS	2.00NS
5	-6.00NS	-2.00NS	2.00NS
6	-4.00NS	2.00NS	6.00NS
7	-4.00NS	0.00 S	4.00NS
8	-4.00NS	0.00 S	4.00NS
9	-4.00NS	2.00NS	6.00NS
10	-6.00NS	-2.00NS	2.00NS
11	-4.00NS	0.00 S	4.00NS
12	-4.00NS	-2.00NS	2.00NS
13	-6.00NS	-2.00NS	2.00NS
14	-6.00NS	-2.00NS	2.00NS
15	-4.00NS	0.00 S	4.00NS
16	-4.00NS	0.00 S	4.00NS
17	-4.00NS	0.00 S	4.00NS
18	-6.00NS	-2.00NS	2.00NS
19	-4.00NS	0.00 S	4.00NS
20	-4.00NS	0.00 S	4.00NS
21	-6.00NS	0.00 S	4.00NS
22	-4.00NS	2.00NS	6.00NS
23	-2.00NS	2.00NS	6.00NS
24	0.00 S	4.00NS	8.00NS
25	-6.00NS	-2.00NS	2.00NS
26	-4.00NS	0.00 S	4.00NS
27	-4.00NS	2.00NS	6.00NS
28	-4.00NS	0.00 S	4.00NS
29	-6.00NS	-2.00NS	4.00NS
30	-4.00NS	-2.00NS	2.00NS
31	-2.00NS	2.00NS	6.00NS
32	-4.00NS	0.00 S	4.00NS
33	-6.00NS	-2.00NS	2.00NS
34	-6.00NS	-2.00NS	2.00NS
35	-4.00NS	0.00 S	2.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-4.33NS	-133.PS	3.87NS
STD DEV	1.37NS	1.63NS	1.63NS
MEDIAN	-4.00NS	0.00 S	4.00NS
MIN VALUE	-6.00NS	-2.00NS	2.00NS
MAX VALUE	0.00 S	4.00NS	8.00NS
NUMBER	30	30	30

INITIAL DATA

CHIP ENABLE TO WRITE TIME (TWS) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	48.0NS	40.0NS	34.0NS
5	52.0NS	42.0NS	36.0NS
6	46.0NS	40.0NS	34.0NS
7	40.0NS	34.0NS	30.0NS
8	38.0NS	32.0NS	28.0NS
9	36.0NS	32.0NS	26.0NS
10	50.0NS	44.0NS	36.0NS
11	36.0NS	32.0NS	28.0NS
12	44.0NS	40.0NS	36.0NS
13	42.0NS	34.0NS	28.0NS
14	50.0NS	44.0NS	38.0NS
15	40.0NS	34.0NS	32.0NS
16	44.0NS	40.0NS	32.0NS
17	50.0NS	42.0NS	36.0NS
18	50.0NS	46.0NS	38.0NS
19	50.0NS	40.0NS	34.0NS
20	42.0NS	36.0NS	28.0NS
21	58.0NS	46.0NS	42.0NS
22	40.0NS	34.0NS	28.0NS
23	38.0NS	34.0NS	28.0NS
24	34.0NS	30.0NS	24.0NS
25	58.0NS	50.0NS	42.0NS
26	38.0NS	32.0NS	28.0NS
27	44.0NS	34.0NS	28.0NS
28	44.0NS	38.0NS	32.0NS
29	52.0NS	42.0NS	36.0NS
30	44.0NS	38.0NS	32.0NS
31	38.0NS	32.0NS	28.0NS
32	64.0NS	54.0NS	50.0NS
33	50.0NS	42.0NS	38.0NS
34	48.0NS	40.0NS	34.0NS
35	44.0NS	36.0NS	32.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	45.1NS	38.4NS	32.9NS
STD DEV	7.04NS	5.81NS	5.58NS
MEDIAN	44.0NS	38.0NS	32.0NS
MIN VALUE	34.0NS	30.0NS	24.0NS
MAX VALUE	64.0NS	54.0NS	50.0NS
NUMBER	30	30	30

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INITIAL DATA

READ CYCLE TIME (TRC) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	130.NS	115.NS	105.NS
5	155.NS	130.NS	115.NS
6	180.NS	140.NS	125.NS
7	140.NS	120.NS	110.NS
8	165.NS	130.NS	115.NS
9	145.NS	120.NS	110.NS
10	155.NS	125.NS	115.NS
11	145.NS	115.NS	105.NS
12	105.NS	100.NS	100.NS
13	155.NS	125.NS	110.NS
14	160.NS	135.NS	120.NS
15	110.NS	100.NS	100.NS
16	180.NS	145.NS	125.NS
17	165.NS	135.NS	120.NS
18	155.NS	130.NS	115.NS
19	170.NS	140.NS	120.NS
20	140.NS	115.NS	105.NS
21	195.NS	160.NS	145.NS
22	175.NS	145.NS	130.NS
23	145.NS	125.NS	110.NS
24	125.NS	110.NS	100.NS
25	170.NS	145.NS	130.NS
26	140.NS	115.NS	105.NS
27	150.NS	130.NS	115.NS
28	165.NS	135.NS	115.NS
29	160.NS	135.NS	120.NS
30	145.NS	120.NS	110.NS
31	145.NS	120.NS	110.NS
32	205.NS	165.NS	160.NS
33	165.NS	135.NS	120.NS
34	150.NS	125.NS	115.NS
35	115.NS	105.NS	100.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	154.NS	128.NS	116.NS
STD DEV	22.3NS	15.3NS	12.9NS
MEDIAN	155.NS	128.NS	115.NS
MIN VALUE	105.NS	100.NS	100.NS
MAX VALUE	205.NS	165.NS	160.NS
NUMBER	30	30	30

INITIAL DATA

WRITE CYCLE TIME (TWC) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	80.0NS	80.0NS	80.0NS
5	88.0NS	80.0NS	80.0NS
6	100.NS	80.0NS	80.0NS
7	80.0NS	80.0NS	80.0NS
8	86.0NS	80.0NS	80.0NS
9	82.0NS	80.0NS	80.0NS
10	88.0NS	80.0NS	80.0NS
11	80.0NS	80.0NS	80.0NS
12	80.0NS	80.0NS	80.0NS
13	80.0NS	80.0NS	80.0NS
14	92.0NS	80.0NS	80.0NS
15	80.0NS	80.0NS	80.0NS
16	100.NS	84.0NS	80.0NS
17	90.0NS	80.0NS	80.0NS
18	88.0NS	80.0NS	80.0NS
19	104.NS	86.0NS	80.0NS
20	80.0NS	80.0NS	80.0NS
21	96.0NS	88.0NS	82.0NS
22	98.0NS	80.0NS	80.0NS
23	82.0NS	80.0NS	80.0NS
24	80.0NS	80.0NS	80.0NS
25	92.0NS	88.0NS	80.0NS
26	80.0NS	80.0NS	80.0NS
27	84.0NS	80.0NS	80.0NS
28	88.0NS	80.0NS	80.0NS
29	90.0NS	80.0NS	80.0NS
30	80.0NS	80.0NS	80.0NS
31	80.0NS	80.0NS	80.0NS
32	112.NS	96.0NS	102.NS
33	88.0NS	80.0NS	80.0NS
34	129.NS	112.NS	104.NS
35	80.0NS	80.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	89.0NS	82.5NS	81.6NS
STD DEV	11.2NS	6.53NS	5.74NS
MEDIAN	87.0NS	80.0NS	80.0NS
MIN VALUE	80.0NS	80.0NS	80.0NS
MAX VALUE	129.NS	112.NS	104.NS
NUMBER	30	30	30

INITIAL DATA

CHIP ENABLE TIME (TEN) AT 25 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	26.0NS	22.0NS	20.0NS
5	30.0NS	24.0NS	22.0NS
6	30.0NS	26.0NS	24.0NS
7	26.0NS	22.0NS	20.0NS
8	26.0NS	22.0NS	20.0NS
9	26.0NS	22.0NS	20.0NS
10	28.0NS	24.0NS	22.0NS
11	24.0NS	20.0NS	18.0NS
12	24.0NS	20.0NS	18.0NS
13	28.0NS	24.0NS	22.0NS
14	32.0NS	28.0NS	24.0NS
15	24.0NS	20.0NS	18.0NS
16	28.0NS	24.0NS	22.0NS
17	32.0NS	26.0NS	24.0NS
18	28.0NS	24.0NS	22.0NS
19	28.0NS	24.0NS	20.0NS
20	26.0NS	22.0NS	20.0NS
21	38.0NS	32.0NS	30.0NS
22	30.0NS	26.0NS	24.0NS
23	26.0NS	22.0NS	20.0NS
24	24.0NS	20.0NS	18.0NS
25	32.0NS	26.0NS	24.0NS
26	24.0NS	22.0NS	18.0NS
27	30.0NS	24.0NS	22.0NS
28	28.0NS	24.0NS	22.0NS
29	30.0NS	24.0NS	22.0NS
30	26.0NS	22.0NS	20.0NS
31	26.0NS	22.0NS	20.0NS
32	34.0NS	28.0NS	26.0NS
33	30.0NS	26.0NS	22.0NS
34	28.0NS	24.0NS	20.0NS
35	24.0NS	22.0NS	20.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	28.0NS	23.7NS	21.4NS
STD DEV	3.31NS	2.67NS	2.64NS
MEDIAN	28.0NS	24.0NS	21.0NS
MIN VALUE	24.0NS	20.0NS	18.0NS
MAX VALUE	38.0NS	32.0NS	30.0NS
NUMBER	30	30	30

INITIAL DATA

OUTPUT VOLTAGE LOW (VOL) AT 25 C

SERIAL NO.	
4	105.MV
5	125.MV
6	140.MV
7	125.MV
8	125.MV
9	105.MV
10	115.MV
11	110.MV
12	100.MV
13	125.MV
14	145.MV
15	110.MV
16	125.MV
17	130.MV
18	115.MV
19	120.MV
20	115.MV
21	170.MV
22	125.MV
23	110.MV
24	110.MV
25	135.MV
26	110.MV
27	135.MV
28	130.MV
29	120.MV
30	115.MV
31	105.MV
32	150.MV
33	125.MV
34	120.MV
35	110.MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	122.MV
STD DEV	14.8MV
MEDIAN	120.MV
MIN VALUE	100.MV
MAX VALUE	170.MV
NUMBER	30

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

INITIAL DATA

OUTPUT VOLTAGE HIGH (VOH1) AT 25 C

SERIAL NO.	
4	4.38 V
5	4.37 V
6	4.36 V
7	4.38 V
8	4.38 V
9	4.39 V
10	4.38 V
11	4.38 V
12	4.38 V
13	4.38 V
14	4.36 V
15	4.38 V
16	4.38 V
17	4.36 V
18	4.37 V
19	4.38 V
20	4.38 V
21	4.34 V
22	4.37 V
23	4.38 V
24	4.39 V
25	4.36 V
26	4.39 V
27	4.38 V
28	4.38 V
29	4.37 V
30	4.38 V
31	4.39 V
32	4.35 V
33	4.36 V
34	4.38 V
35	4.38 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.60 V
MEAN	4.38 V
STD DEV	12.7MV
MEDIAN	4.38 V
MIN VALUE	4.34 V
MAX VALUE	4.39 V
NUMBER	30

INITIAL DATA

OUTPUT VOLTAGE HIGH (VOH2) AT 25 C

SERIAL NO.	
4	4.89 V
5	4.88 V
6	4.88 V
7	4.88 V
8	4.88 V
9	4.89 V
10	4.88 V
11	4.88 V
12	4.88 V
13	4.88 V
14	4.86 V
15	4.88 V
16	4.88 V
17	4.87 V
18	4.88 V
19	4.88 V
20	4.89 V
21	4.86 V
22	4.88 V
23	4.89 V
24	4.88 V
25	4.86 V
26	4.89 V
27	4.88 V
28	4.88 V
29	4.88 V
30	4.88 V
31	4.88 V
32	4.86 V
33	4.87 V
34	4.88 V
35	4.88 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.88 V
STD DEV	9.07MV
MEDIAN	4.88 V
MIN VALUE	4.86 V
MAX VALUE	4.89 V
NUMBER	30

INITIAL DATA

AVERAGE INPUT LOW CURRENT (IIL) AT 25 C

SERIAL NO.	
4	-2.31NA
5	-3.04NA
6	-1.00NA
7	-1.65NA
8	-615.PA
9	-2.54NA
10	-1.54NA
11	-769.PA
12	-1.23NA
13	-885.PA
14	-962.PA
15	-1.19NA
16	-462.PA
17	-846.PA
18	-1.65NA
19	-538.PA
20	-692.PA
21	-846.PA
22	-2.77NA
23	-2.35NA
24	-577.PA
25	-1.12NA
26	-808.PA
27	-731.PA
28	-808.PA
29	-2.04NA
30	-2.00NA
31	-2.77NA
32	-1.00NA
33	-1.50NA
34	-2.04NA
35	-1.46NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-1.31NA
STD DEV	672.PA
MEDIAN	-1.06NA
MIN VALUE	-2.77NA
MAX VALUE	-462.PA
NUMBER	30

INITIAL DATA

WORST CASE INPUT LOW CURRENT (IIL) AT 25 C

SERIAL NO.	
4	-3.00NA
5	-4.00NA
6	-1.50NA
7	-2.00NA
8	-1.50NA
9	-3.50NA
10	-2.00NA
11	-1.50NA
12	-2.00NA
13	-2.00NA
14	-2.00NA
15	-2.00NA
16	-1.00NA
17	-1.50NA
18	-2.00NA
19	-1.50NA
20	-1.50NA
21	-1.50NA
22	-3.50NA
23	-8.00NA
24	-1.00NA
25	-1.50NA
26	-2.00NA
27	-1.00NA
28	-1.50NA
29	-2.50NA
30	-2.50NA
31	-6.50NA
32	-1.50NA
33	-2.00NA
34	-3.00NA
35	-2.00NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-2.25NA
STD DEV	1.48NA
MEDIAN	-2.00NA
MIN VALUE	-8.00NA
MAX VALUE	-1.00NA
NUMBER	30

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

INITIAL DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT 25 C

SERIAL NO.	
4	2.42NA
5	3.12NA
6	962.PA
7	1.73NA
8	769.PA
9	2.27NA
10	1.58NA
11	808.PA
12	1.19NA
13	885.PA
14	1.12NA
15	1.19NA
16	500.PA
17	1.00NA
18	1.65NA
19	769.PA
20	692.PA
21	885.PA
22	2.77NA
23	14.3NA
24	769.PA
25	1.38NA
26	1.00NA
27	692.PA
28	846.PA
29	2.31NA
30	1.77NA
31	2.31NA
32	1.15NA
33	1.62NA
34	2.19NA
35	1.42NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	1.75NA
STD DEV	2.40NA
MEDIAN	1.17NA
MIN VALUE	500.PA
MAX VALUE	14.3NA
NUMBER	30

INITIAL DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT 25 C

SERIAL NO.	
4	3.50NA
5	4.00NA
6	2.00NA
7	2.50NA
8	1.50NA
9	3.00NA
10	2.00NA
11	1.50NA
12	2.00NA
13	1.50NA
14	2.00NA
15	2.00NA
16	1.50NA
17	2.00NA
18	2.50NA
19	1.50NA
20	1.50NA
21	1.50NA
22	3.50NA
23	166.NA
24	1.50NA
25	2.00NA
26	1.50NA
27	1.50NA
28	1.50NA
29	3.00NA
30	2.50NA
31	3.50NA
32	2.00NA
33	2.00NA
34	3.00NA
35	2.00NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	7.53NA
STD DEV	29.4NA
MEDIAN	2.00NA
MIN VALUE	1.50NA
MAX VALUE	166.NA
NUMBER	30

INITIAL DATA

SUPPLY CURRENT (ICC1B0) AT 25 C

SERIAL NO.	
4	25.5UA
5	3.48UA
6	27.1UA
7	2.28UA
8	41.6UA
9	4.86UA
10	2.67UA
11	1.12UA
12	1.99UA
13	1.18UA
14	822.NA
15	2.52UA
16	616.NA
17	542.NA
18	1.20UA
19	653.NA
20	613.NA
21	684.NA
22	2.26UA
23	4.12UA
24	951.NA
25	4.77UA
26	1.16UA
27	4.29UA
28	1.11LA
29	471.UA
30	12.0UA
31	2.35UA
32	464.NA
33	5.72UA
34	156.UA
35	1.99UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	25.3UA
STD DEV	87.4UA
MEDIAN	2.12UA
MIN VALUE	464.NA
MAX VALUE	471.UA
NUMBER	30

INITIAL DATA

SUPPLY CURRENT (ICC1B1) AT 25 C

SERIAL NO.	
4	100.UA
5	4.49UA
6	99.1UA
7	43.1UA
8	41.0UA
9	21.3UA
10	2.78UA
11	1.35UA
12	6.75UA
13	1.65UA
14	1.41UA
15	2.80UA
16	664.NA
17	592.NA
18	1.49UA
19	640.NA
20	822.NA
21	789.NA
22	1.96UA
23	14.1UA
24	15.5UA
25	17.0UA
26	1.55UA
27	4.31UA
28	1.11UA
29	470.UA
30	16.3UA
31	23.4UA
32	478.NA
33	1.03MA *
34	169.UA
35	2.57UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	66.2UA
STD DEV	199.UA
MEDIAN	2.79UA
MIN VALUE	478.NA
MAX VALUE	1.03MA
NUMBER	30

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

INITIAL DATA

SUPPLY CURRENT (ICC280) AT 25 C

SERIAL NO.	
4	25.9UA
5	144.UA
6	26.9UA
7	2.62UA
8	42.2UA
9	5.26UA
10	2.72UA
11	1.20UA
12	3.93UA
13	4.92UA
14	882.NA
15	3.14UA
16	702.NA
17	6.96UA
18	1.21UA
19	737.NA
20	685.NA
21	563.NA
22	391.UA
23	3.00UA
24	1.16UA
25	5.74UA
26	1.59UA
27	1.97UA
28	1.28UA
29	1.04UA
30	6.10UA
31	2.63UA
32	10.2MA *
33	46.8UA
34	207.UA
35	2.58UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	367.UA
STD DEV	1.83MA
MEDIAN	2.68UA
MIN VALUE	563.NA
MAX VALUE	10.2MA
NUMBER	30

INITIAL DATA

SUPPLY CURRENT (ICC2B1) AT 25 C

SERIAL NO.	
4	99.5UA
5	144.UA
6	127.UA
7	51.2UA
8	42.3UA
9	22.8UA
10	2.49UA
11	923.NA
12	2.12UA
13	4.86UA
14	1.21UA
15	1.87UA
16	484.NA
17	6.80UA
18	1.06UA
19	494.NA
20	552.NA
21	423.NA
22	389.UA
23	12.4UA
24	16.8UA
25	14.4UA
26	1.20UA
27	1.77UA
28	795.NA
29	733.NA
30	6.74UA
31	23.1UA
32	10.2MA *
33	1.09MA *
34	208.UA
35	1.65UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	409.UA
STD DEV	1.84MA
MEDIAN	3.67UA
MIN VALUE	423.NA
MAX VALUE	10.2MA
NUMBER	30

INITIAL DATA

OUTPUT LEAKAGE CURRENT (IOL) AT 25 C

SERIAL NO.	
4	755.NA
5	74.5NA
6	8.00NA
7	10.0NA
8	5.50NA
9	11.5NA
10	21.5NA
11	18.5NA
12	25.5NA
13	29.5NA
14	9.00NA
15	8.00NA
16	5.50NA
17	8.00NA
18	27.5NA
19	5.00NA
20	11.0NA
21	8.00NA
22	13.0NA
23	9.00NA
24	5.00NA
25	88.0NA
26	10.5NA
27	5.50NA
28	8.50NA
29	12.5NA
30	314.NA
31	11.0NA
32	7.00NA
33	19.5NA
34	357.NA
35	12.5NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	36.2NA
STD DEV	81.5NA
MEDIAN	10.8NA
MIN VALUE	5.00NA
MAX VALUE	357.NA
NUMBER	30

INITIAL DATA

ADDRESS ACCESS TIME (TAA) AT -55 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	125.NS	95.0NS	85.0NS
5	185.NS	130.NS	110.NS
6	345.NS *	185.NS	135.NS
7	150.NS	110.NS	95.0NS
8	290.NS *	155.NS	115.NS
9	175.NS	115.NS	95.0NS
10	180.NS	130.NS	105.NS
11	205.NS	130.NS	105.NS
12	90.0NS	80.0NS	70.0NS
13	215.NS	140.NS	110.NS
14	235.NS	155.NS	125.NS
15	105.NS	90.0NS	80.0NS
16	315.NS *	165.NS	125.NS
17	215.NS	145.NS	115.NS
18	180.NS	130.NS	105.NS
19	255.NS *	155.NS	120.NS
20	175.NS	120.NS	100.NS
21	250.NS	175.NS	140.NS
22	265.NS *	155.NS	120.NS
23	190.NS	125.NS	105.NS
24	145.NS	110.NS	95.0NS
25	175.NS	135.NS	115.NS
26	190.NS	125.NS	100.NS
27	195.NS	135.NS	110.NS
28	240.NS	150.NS	120.NS
29	190.NS	135.NS	110.NS
30	150.NS	115.NS	95.0NS
31	160.NS	115.NS	95.0NS
32	315.NS *	190.NS	165.NS
33	210.NS	140.NS	115.NS
34	245.NS	180.NS	150.NS
35	100.NS	85.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	205.NS	136.NS	111.NS
STD DEV	61.6NS	27.4NS	19.8NS
MEDIAN	193.NS	135.NS	110.NS
MIN VALUE	90.0NS	80.0NS	70.0NS
MAX VALUE	345.NS	190.NS	165.NS
NUMBER	30	30	30

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

INITIAL DATA

DATA SETUP TIME (TDS) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	14.0NS	12.0NS	12.0NS
5	16.0NS	14.0NS	12.0NS
6	12.0NS	10.0NS	10.0NS
7	8.00NS	6.00NS	8.00NS
8	10.0NS	10.0NS	10.0NS
9	8.00NS	8.00NS	8.00NS
10	16.0NS	12.0NS	10.0NS
11	10.0NS	8.00NS	8.00NS
12	12.0NS	10.0NS	8.00NS
13	12.0NS	10.0NS	10.0NS
14	16.0NS	12.0NS	10.0NS
15	8.00NS	6.00NS	6.00NS
16	12.0NS	10.0NS	12.0NS
17	16.0NS	12.0NS	10.0NS
18	18.0NS	14.0NS	12.0NS
19	12.0NS	12.0NS	12.0NS
20	10.0NS	8.00NS	8.00NS
21	18.0NS	12.0NS	12.0NS
22	10.0NS	8.00NS	8.00NS
23	8.00NS	8.00NS	8.00NS
24	6.00NS	4.00NS	6.00NS
25	22.0NS	16.0NS	14.0NS
26	10.0NS	8.00NS	8.00NS
27	12.0NS	10.0NS	8.00NS
28	12.0NS	10.0NS	10.0NS
29	16.0NS	12.0NS	10.0NS
30	12.0NS	10.0NS	10.0NS
31	8.00NS	8.00NS	8.00NS
32	20.0NS	14.0NS	12.0NS
33	16.0NS	12.0NS	10.0NS
34	10.0NS	10.0NS	10.0NS
35	10.0NS	8.00NS	8.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	12.3NS	9.93NS	9.47NS
STD DEV	3.90NS	2.56NS	1.86NS
MEDIAN	12.0NS	10.0NS	10.0NS
MIN VALUE	6.00NS	4.00NS	6.00NS
MAX VALUE	22.0NS	16.0NS	14.0NS
NUMBER	30	30	30

INITIAL DATA

DATA HOLD TIME (TDH) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	12.0NS	14.0NS	16.0NS
5	14.0NS	18.0NS	22.0NS
6	18.0NS	22.0NS	26.0NS
7	14.0NS	18.0NS	20.0NS
8	16.0NS	18.0NS	22.0NS
9	18.0NS	18.0NS	20.0NS
10	14.0NS	18.0NS	18.0NS
11	14.0NS	18.0NS	20.0NS
12	12.0NS	14.0NS	18.0NS
13	14.0NS	16.0NS	18.0NS
14	14.0NS	18.0NS	20.0NS
15	14.0NS	18.0NS	20.0NS
16	18.0NS	20.0NS	24.0NS
17	16.0NS	18.0NS	20.0NS
18	14.0NS	18.0NS	20.0NS
19	18.0NS	20.0NS	26.0NS
20	16.0NS	18.0NS	20.0NS
21	18.0NS	20.0NS	24.0NS
22	18.0NS	18.0NS	22.0NS
23	18.0NS	18.0NS	22.0NS
24	18.0NS	20.0NS	22.0NS
25	14.0NS	16.0NS	20.0NS
26	14.0NS	18.0NS	20.0NS
27	18.0NS	20.0NS	22.0NS
28	16.0NS	18.0NS	22.0NS
29	14.0NS	18.0NS	20.0NS
30	14.0NS	16.0NS	18.0NS
31	16.0NS	18.0NS	20.0NS
32	20.0NS	22.0NS	26.0NS
33	14.0NS	18.0NS	20.0NS
34	14.0NS	16.0NS	18.0NS
35	14.0NS	18.0NS	18.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	15.7NS	18.2NS	20.9NS
STD DEV	2.01NS	1.66NS	2.35NS
MEDIAN	15.0NS	18.0NS	20.0NS
MIN VALUE	12.0NS	14.0NS	18.0NS
MAX VALUE	20.0NS	22.0NS	26.0NS
NUMBER	30	30	30

INITIAL DATA

WRITE PULSE WIDTH (TWP) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	44.0NS	38.0NS	32.0NS
5	50.0NS	42.0NS	38.0NS
6	48.0NS	42.0NS	36.0NS
7	38.0NS	38.0NS	32.0NS
8	42.0NS	32.0NS	30.0NS
9	38.0NS	32.0NS	30.0NS
10	50.0NS	44.0NS	40.0NS
11	38.0NS	34.0NS	32.0NS
12	50.0NS	44.0NS	42.0NS
13	42.0NS	36.0NS	30.0NS
14	54.0NS	44.0NS	40.0NS
15	42.0NS	38.0NS	36.0NS
16	44.0NS	40.0NS	38.0NS
17	50.0NS	42.0NS	38.0NS
18	54.0NS	46.0NS	42.0NS
19	48.0NS	44.0NS	40.0NS
20	44.0NS	38.0NS	30.0NS
21	56.0NS	48.0NS	42.0NS
22	38.0NS	38.0NS	30.0NS
23	40.0NS	32.0NS	30.0NS
24	32.0NS	30.0NS	30.0NS
25	52.0NS	46.0NS	38.0NS
26	40.0NS	36.0NS	32.0NS
27	44.0NS	38.0NS	30.0NS
28	44.0NS	38.0NS	32.0NS
29	50.0NS	44.0NS	42.0NS
30	44.0NS	38.0NS	32.0NS
31	38.0NS	32.0NS	30.0NS
32	66.0NS	56.0NS	48.0NS
33	50.0NS	44.0NS	40.0NS
34	44.0NS	38.0NS	32.0NS
35	44.0NS	40.0NS	38.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	45.5NS	39.7NS	35.4NS
STD DEV	6.85NS	5.63NS	5.09NS
MEDIAN	44.0NS	38.0NS	34.0NS
MIN VALUE	32.0NS	30.0NS	30.0NS
MAX VALUE	66.0NS	56.0NS	48.0NS
NUMBER	30	30	30

INITIAL DATA

ADDRESS SETUP TIME (TAS) AT -55 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	18.0NS	16.0NS	16.0NS
5	34.0NS	24.0NS	20.0NS
6	1.00KS *	44.0NS	30.0NS
7	32.0NS	22.0NS	20.0NS
8	1.00KS *	34.0NS	24.0NS
9	44.0NS	26.0NS	22.0NS
10	34.0NS	22.0NS	20.0NS
11	58.0NS	28.0NS	22.0NS
12	14.0NS	14.0NS	14.0NS
13	54.0NS	26.0NS	22.0NS
14	50.0NS	28.0NS	24.0NS
15	16.0NS	14.0NS	16.0NS
16	1.00KS *	40.0NS	30.0NS
17	42.0NS	26.0NS	22.0NS
18	36.0NS	24.0NS	22.0NS
19	1.00KS *	36.0NS	26.0NS
20	38.0NS	24.0NS	20.0NS
21	46.0NS	30.0NS	26.0NS
22	1.00KS *	38.0NS	28.0NS
23	44.0NS	26.0NS	22.0NS
24	30.0NS	22.0NS	20.0NS
25	32.0NS	24.0NS	22.0NS
26	46.0NS	26.0NS	22.0NS
27	42.0NS	26.0NS	22.0NS
28	66.0NS	32.0NS	24.0NS
29	36.0NS	24.0NS	20.0NS
30	28.0NS	20.0NS	18.0NS
31	40.0NS	24.0NS	22.0NS
32	76.0NS *	38.0NS	32.0NS
33	44.0NS	26.0NS	22.0NS
34	1.00KS *	68.0NS	50.0NS
35	16.0NS	14.0NS	16.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	40.2NS	28.2NS	23.3NS
STD DEV	14.4NS	10.3NS	6.35NS
MEDIAN	41.0NS	26.0NS	22.0NS
MIN VALLE	14.0NS	14.0NS	14.0NS
MAX VALLE	76.0NS	68.0NS	50.0NS
NUMBER	24	30	30

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

INITIAL DATA

ADDRESS HOLD TIME (TAH) AT -55 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	-4.00NS	-2.00NS	2.00NS
5	-6.00NS	0.00 S	4.00NS
6	-4.00NS	0.00 S	6.00NS
7	-4.00NS	0.00 S	4.00NS
8	-4.00NS	0.00 S	4.00NS
9	-4.00NS	2.00NS	4.00NS
10	-6.00NS	-2.00NS	2.00NS
11	-4.00NS	0.00 S	4.00NS
12	-4.00NS	-2.00NS	2.00NS
13	-6.00NS	-2.00NS	2.00NS
14	-6.00NS	-2.00NS	2.00NS
15	-4.00NS	0.00 S	4.00NS
16	-4.00NS	0.00 S	4.00NS
17	-6.00NS	-2.00NS	4.00NS
18	-6.00NS	-2.00NS	2.00NS
19	-4.00NS	0.00 S	4.00NS
20	-4.00NS	2.00NS	4.00NS
21	-4.00NS	0.00 S	6.00NS
22	-4.00NS	0.00 S	4.00NS
23	-2.00NS	2.00NS	4.00NS
24	0.00 S	4.00NS	6.00NS
25	-6.00NS	-2.00NS	4.00NS
26	-4.00NS	0.00 S	4.00NS
27	-4.00NS	2.00NS	6.00NS
28	-4.00NS	0.00 S	4.00NS
29	-6.00NS	-2.00NS	2.00NS
30	-4.00NS	0.00 S	4.00NS
31	-2.00NS	2.00NS	4.00NS
32	-4.00NS	0.00 S	4.00NS
33	-6.00NS	-2.00NS	4.00NS
34	-4.00NS	0.00 S	4.00NS
35	-4.00NS	0.00 S	2.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-4.27NS	-133.PS	3.80NS
STD DEV	1.34NS	1.54NS	1.19NS
MEDIAN	-4.00NS	0.00 S	4.00NS
MIN VALUE	-6.00NS	-2.00NS	2.00NS
MAX VALUE	0.00 S	4.00NS	6.00NS
NUMBER	30	30	30

INITIAL DATA

CHIP ENABLE TO WRITE TIME (TWS) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	42.0NS	36.0NS	28.0NS
5	46.0NS	40.0NS	36.0NS
6	46.0NS	38.0NS	32.0NS
7	34.0NS	32.0NS	26.0NS
8	38.0NS	34.0NS	30.0NS
9	32.0NS	30.0NS	24.0NS
10	52.0NS	42.0NS	36.0NS
11	36.0NS	32.0NS	28.0NS
12	48.0NS	42.0NS	38.0NS
13	38.0NS	32.0NS	24.0NS
14	50.0NS	40.0NS	36.0NS
15	38.0NS	34.0NS	30.0NS
16	42.0NS	38.0NS	30.0NS
17	50.0NS	40.0NS	34.0NS
18	52.0NS	44.0NS	38.0NS
19	44.0NS	40.0NS	34.0NS
20	40.0NS	34.0NS	28.0NS
21	54.0NS	44.0NS	36.0NS
22	40.0NS	34.0NS	28.0NS
23	38.0NS	32.0NS	24.0NS
24	34.0NS	28.0NS	20.0NS
25	54.0NS	44.0NS	38.0NS
26	36.0NS	32.0NS	28.0NS
27	40.0NS	34.0NS	28.0NS
28	40.0NS	36.0NS	30.0NS
29	52.0NS	44.0NS	36.0NS
30	40.0NS	36.0NS	30.0NS
31	36.0NS	28.0NS	24.0NS
32	66.0NS	54.0NS	48.0NS
33	50.0NS	42.0NS	36.0NS
34	42.0NS	36.0NS	30.0NS
35	42.0NS	38.0NS	34.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	43.5NS	37.1NS	31.3NS
STD DEV	7.68NS	5.70NS	5.72NS
MEDIAN	41.0NS	36.0NS	30.0NS
MIN VALUE	32.0NS	28.0NS	20.0NS
MAX VALUE	66.0NS	54.0NS	48.0NS
NUMBER	30	30	30

INITIAL DATA

READ CYCLE TIME (TRC) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	115.NS	100.NS	100.NS
5	150.NS	115.NS	100.NS
6	210.NS	145.NS	115.NS
7	120.NS	100.NS	100.NS
8	165.NS	120.NS	105.NS
9	135.NS	105.NS	100.NS
10	145.NS	115.NS	100.NS
11	135.NS	105.NS	100.NS
12	100.NS	100.NS	100.NS
13	170.NS	120.NS	100.NS
14	160.NS	125.NS	105.NS
15	100.NS	100.NS	100.NS
16	175.NS	130.NS	110.NS
17	165.NS	125.NS	105.NS
18	145.NS	115.NS	100.NS
19	175.NS	125.NS	105.NS
20	140.NS	105.NS	100.NS
21	195.NS	145.NS	125.NS
22	175.NS	125.NS	105.NS
23	145.NS	110.NS	100.NS
24	120.NS	100.NS	100.NS
25	155.NS	125.NS	110.NS
26	140.NS	105.NS	100.NS
27	155.NS	115.NS	105.NS
28	175.NS	130.NS	105.NS
29	150.NS	115.NS	100.NS
30	135.NS	105.NS	100.NS
31	130.NS	105.NS	100.NS
32	200.NS	150.NS	135.NS
33	165.NS	120.NS	105.NS
34	140.NS	115.NS	100.NS
35	100.NS	100.NS	100.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	151.NS	117.NS	105.NS
STD DEV	27.4NS	13.8NS	7.89NS
MEDIAN	148.NS	115.NS	100.NS
MIN VALUE	100.NS	100.NS	100.NS
MAX VALUE	210.NS	150.NS	135.NS
NUMBER	30	30	30

INITIAL DATA

WRITE CYCLE TIME (TWC) AT -55 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	80.0NS	80.0NS	80.0NS
5	94.0NS	80.0NS	80.0NS
6	1.00KS *	96.0NS	80.0NS
7	80.0NS	80.0NS	80.0NS
8	1.00KS *	80.0NS	80.0NS
9	92.0NS	80.0NS	80.0NS
10	94.0NS	80.0NS	80.0NS
11	106.NS	80.0NS	80.0NS
12	80.0NS	80.0NS	80.0NS
13	106.NS	80.0NS	80.0NS
14	113.NS	82.0NS	80.0NS
15	80.0NS	80.0NS	80.0NS
16	1.00KS *	90.0NS	80.0NS
17	102.NS	80.0NS	80.0NS
18	100.NS	80.0NS	80.0NS
19	1.00KS *	90.0NS	80.0NS
20	92.0NS	80.0NS	80.0NS
21	112.NS	88.0NS	80.0NS
22	1.00KS *	91.0NS	80.0NS
23	94.0NS	80.0NS	80.0NS
24	80.0NS	80.0NS	80.0NS
25	94.0NS	80.0NS	80.0NS
26	96.0NS	80.0NS	80.0NS
27	96.0NS	80.0NS	80.0NS
28	119.NS	80.0NS	80.0NS
29	96.0NS	80.0NS	80.0NS
30	82.0NS	80.0NS	80.0NS
31	88.0NS	80.0NS	80.0NS
32	152.NS	104.NS	90.0NS
33	104.NS	80.0NS	80.0NS
34	1.00KS *	116.NS	92.0NS
35	80.0NS	80.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	97.4NS	83.9NS	80.7NS
STD DEV	15.9NS	8.29NS	2.76NS
MEDIAN	95.0NS	80.0NS	80.0NS
MIN VALUE	80.0NS	80.0NS	80.0NS
MAX VALUE	152.NS	116.NS	92.0NS
NUMBER	24	30	30

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

INITIAL DATA

CHIP ENABLE TIME (TEN) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	22.0NS	20.0NS	16.0NS
5	26.0NS	22.0NS	20.0NS
6	28.0NS	24.0NS	22.0NS
7	22.0NS	18.0NS	16.0NS
8	24.0NS	20.0NS	18.0NS
9	22.0NS	18.0NS	16.0NS
10	26.0NS	22.0NS	18.0NS
11	22.0NS	18.0NS	16.0NS
12	20.0NS	18.0NS	16.0NS
13	24.0NS	22.0NS	18.0NS
14	30.0NS	24.0NS	22.0NS
15	22.0NS	18.0NS	16.0NS
16	24.0NS	20.0NS	18.0NS
17	28.0NS	24.0NS	20.0NS
18	24.0NS	22.0NS	18.0NS
19	24.0NS	20.0NS	18.0NS
20	22.0NS	18.0NS	16.0NS
21	34.0NS	28.0NS	24.0NS
22	26.0NS	22.0NS	20.0NS
23	22.0NS	18.0NS	16.0NS
24	20.0NS	18.0NS	16.0NS
25	26.0NS	22.0NS	20.0NS
26	22.0NS	18.0NS	16.0NS
27	26.0NS	22.0NS	20.0NS
28	26.0NS	22.0NS	20.0NS
29	26.0NS	22.0NS	18.0NS
30	22.0NS	18.0NS	16.0NS
31	22.0NS	18.0NS	16.0NS
32	30.0NS	26.0NS	22.0NS
33	26.0NS	22.0NS	20.0NS
34	22.0NS	20.0NS	18.0NS
35	22.0NS	18.0NS	16.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	24.5NS	20.7NS	18.2NS
STD DEV	3.17NS	2.70NS	2.27NS
MEDIAN	24.0NS	20.0NS	18.0NS
MIN VALUE	20.0NS	18.0NS	16.0NS
MAX VALUE	34.0NS	28.0NS	24.0NS
NUMBER	30	30	30

INITIAL DATA

OUTPUT VOLTAGE LOW (VOL) AT -55 C

SERIAL NO.	
4	80.0MV
5	100.MV
6	120.MV
7	100.MV
8	105.MV
9	85.0MV
10	95.0MV
11	90.0MV
12	80.0MV
13	100.MV
14	120.MV
15	90.0MV
16	100.MV
17	110.MV
18	90.0MV
19	95.0MV
20	95.0MV
21	140.MV
22	105.MV
23	90.0MV
24	85.0MV
25	105.MV
26	90.0MV
27	110.MV
28	105.MV
29	95.0MV
30	90.0MV
31	90.0MV
32	120.MV
33	100.MV
34	95.0MV
35	85.0MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	99.3MV
STD DEV	12.9MV
MEDIAN	95.0MV
MIN VALUE	80.0MV
MAX VALUE	140.MV
NUMBER	30

INITIAL DATA

OUTPUT VOLTAGE HIGH (VOH1) AT -55 C

SERIAL NO.	
4	4.41 V
5	4.41 V
6	4.40 V
7	4.42 V
8	4.41 V
9	4.42 V
10	4.41 V
11	4.42 V
12	4.41 V
13	4.41 V
14	4.40 V
15	4.41 V
16	4.41 V
17	4.40 V
18	4.41 V
19	4.41 V
20	4.42 V
21	4.39 V
22	4.41 V
23	4.42 V
24	4.42 V
25	4.39 V
26	4.42 V
27	4.41 V
28	4.41 V
29	4.41 V
30	4.41 V
31	4.42 V
32	4.39 V
33	4.40 V
34	4.41 V
35	4.41 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.60 V
MEAN	4.41 V
STD DEV	8.91MV
MEDIAN	4.41 V
MIN VALUE	4.39 V
MAX VALUE	4.42 V
NUMBER	30

INITIAL DATA

OUTPUT VOLTAGE HIGH (VOH2) AT -55 C

SERIAL NO.	
4	4.92 V
5	4.92 V
6	4.91 V
7	4.91 V
8	4.91 V
9	4.92 V
10	4.92 V
11	4.92 V
12	4.91 V
13	4.91 V
14	4.90 V
15	4.92 V
16	4.91 V
17	4.91 V
18	4.91 V
19	4.92 V
20	4.92 V
21	4.90 V
22	4.91 V
23	4.92 V
24	4.92 V
25	4.90 V
26	4.92 V
27	4.92 V
28	4.91 V
29	4.91 V
30	4.92 V
31	4.92 V
32	4.90 V
33	4.91 V
34	4.91 V
35	4.92 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.92 V
STD DEV	6.82MV
MEDIAN	4.91 V
MIN VALUE	4.90 V
MAX VALUE	4.92 V
NUMBER	30

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

INITIAL DATA

AVERAGE INPUT LOW CURRENT (IIL) AT -55 C

SERIAL NO.	
4	-154.PA
5	-115.PA
6	-154.PA
7	-154.PA
8	0.00 A
9	-192.PA
10	-269.PA
11	-923.PA
12	-192.PA
13	-76.9PA
14	0.00 A
15	-192.PA
16	-115.PA
17	-231.PA
18	-76.9PA
19	0.00 A
20	-231.PA
21	-154.PA
22	-76.9PA
23	-231.PA
24	-38.5PA
25	-76.9PA
26	-76.9PA
27	0.00 A
28	38.5PA
29	38.5PA
30	-462.PA
31	-38.5PA
32	76.9PA
33	-115.PA
34	-231.PA
35	-76.9PA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-141.PA
STD DEV	183.PA
MEDIAN	-96.2PA
MIN VALUE	-923.PA
MAX VALUE	76.9PA
NUMBER	30

INITIAL DATA

WORST CASE INPUT LOW CURRENT (IIL) AT -55 C

SERIAL NO.	
4	-1.00NA
5	-1.00NA
6	-1.00NA
7	-1.00NA
8	500.PA
9	-1.00NA
10	-2.00NA
11	-10.5NA
12	-1.00NA
13	-500.PA
14	-500.PA
15	-1.00NA
16	-1.00NA
17	-1.00NA
18	-1.00NA
19	-500.PA
20	-1.00NA
21	-1.00NA
22	-1.00NA
23	-2.00NA
24	-500.PA
25	500.PA
26	-1.00NA
27	-500.PA
28	500.PA
29	500.PA
30	-2.50NA
31	-500.PA
32	500.PA
33	-1.00NA
34	-1.00NA
35	-1.00NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-1.08NA
STD DEV	1.89NA
MEDIAN	-1.00NA
MIN VALUE	-10.5NA
MAX VALUE	500.PA
NUMBER	30

INITIAL DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT -55 C

SERIAL NO.	
4	308.PA
5	308.PA
6	346.PA
7	962.PA
8	577.PA
9	731.PA
10	1.54NA
11	3.15NA
12	1.04NA
13	1.38NA
14	15.2NA
15	692.PA
16	654.PA
17	923.PA
18	346.PA
19	808.PA
20	615.PA
21	308.PA
22	308.PA
23	5.96NA
24	385.PA
25	308.PA
26	231.PA
27	308.PA
28	308.PA
29	308.PA
30	308.PA
31	346.PA
32	231.PA
33	346.PA
34	231.PA
35	231.PA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	1.30NA
STD DEV	2.80NA
MEDIAN	365.PA
MIN VALUE	231.PA
MAX VALUE	15.2NA
NUMBER	30

INITIAL DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT -55 C

SERIAL NO.	
4	2.00NA
5	1.00NA
6	1.50NA
7	7.50NA
8	4.50NA
9	5.50NA
10	13.5NA
11	20.0NA
12	8.50NA
13	13.0NA
14	111.NA
15	3.50NA
16	2.00NA
17	8.50NA
18	2.00NA
19	7.00NA
20	2.50NA
21	1.50NA
22	1.00NA
23	73.5NA
24	1.00NA
25	1.00NA
26	1.00NA
27	1.50NA
28	1.50NA
29	1.00NA
30	1.00NA
31	1.00NA
32	1.00NA
33	1.00NA
34	1.00NA
35	1.00NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	9.97NA
STD DEV	22.9NA
MEDIAN	1.75NA
MIN VALUE	1.00NA
MAX VALUE	111.NA
NUMBER	30

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

INITIAL DATA

SUPPLY CURRENT (ICC180) AT -55 C

SERIAL NO.	
4	457.NA
5	232.NA
6	16.3UA
7	4.00NA
8	29.5UA
9	656.NA
10	172.NA
11	6.50NA
12	16.5NA
13	11.5NA
14	13.5NA
15	44.5NA
16	21.0NA
17	3.50NA
18	28.0NA
19	20.5NA
20	11.0NA
21	12.0NA
22	53.5NA
23	1.86UA
24	8.50NA
25	34.5NA
26	4.50NA
27	59.5NA
28	122.NA
29	448.UA
30	8.58UA
31	43.5NA
32	24.5NA
33	2.63UA
34	154.UA
35	13.5NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	22.1UA
STD DEV	83.8UA
MEDIAN	31.3NA
MIN VALUE	3.50NA
MAX VALUE	448.UA
NUMBER	30

INITIAL DATA

SUPPLY CURRENT (ICC1B1) AT -55 C

SERIAL NO.	
4	59.0UA
5	239.NA
6	100.UA
7	45.0UA
8	29.3UA
9	17.8UA
10	187.NA
11	8.50NA
12	539.NA
13	14.5NA
14	51.0NA
15	56.5NA
16	21.5NA
17	5.00NA
18	31.5NA
19	21.0NA
20	12.5NA
21	13.0NA
22	55.0NA
23	10.2UA
24	10.5UA
25	3.87UA
26	10.5NA
27	60.0NA
28	26.0NA
29	448.UA
30	8.85UA
31	14.4UA
32	25.5NA
33	1.00MA
34	153.UA
35	27.0NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	61.4UA
STD DEV	194.UA
MEDIAN	58.3NA
MIN VALUE	5.00NA
MAX VALUE	1.00MA
NUMBER	30

INITIAL DATA

SUPPLY CURRENT (ICC280) AT -55 C

SERIAL NO.	
4	432.NA
5	120.UA
6	15.7UA
7	4.00NA
8	29.5UA
9	755.NA
10	170.NA
11	7.50NA
12	219.NA
13	2.43UA
14	15.0NA
15	49.5NA
16	21.0NA
17	4.60UA
18	28.0NA
19	20.0NA
20	11.5NA
21	4.00NA
22	392.UA
23	680.NA
24	10.0NA
25	75.5NA
26	25.5NA
27	321.NA
28	124.NA
29	16.0NA
30	78.5NA
31	5.00NA
32	10.2MA *
33	43.8UA
34	197.UA
35	23.0NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	364.UA
STD DEV	1.83MA
MEDIAN	77.0NA
MIN VALUE	4.00NA
MAX VALUE	10.2MA
NUMBER	30

INITIAL DATA

SUPPLY CURRENT (ICC2B1) AT -55 C

SERIAL NO.	
4	67.8UA
5	121.UA
6	120.UA
7	52.7UA
8	29.5UA
9	19.5UA
10	166.NA
11	7.50NA
12	28.0NA
13	2.44UA
14	56.0NA
15	46.5NA
16	20.5NA
17	4.58UA
18	29.0NA
19	20.5NA
20	11.0NA
21	4.50NA
22	392.UA
23	8.97UA
24	10.9UA
25	4.37UA
26	25.5NA
27	321.NA
28	23.5NA
29	17.5NA
30	85.5NA
31	14.0UA
32	10.2MA *
33	1.07MA *
34	196.UA
35	15.0NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	405.UA
STD DEV	1.84MA
MEDIAN	244.NA
MIN VALUE	4.50NA
MAX VALUE	10.2MA
NUMBER	30

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

INITIAL DATA

OUTPUT LEAKAGE CURRENT (IOL) AT -55 C

SERIAL NO.	
4	12.0NA
5	5.00NA
6	3.00NA
7	3.50NA
8	2.00NA
9	4.00NA
10	6.50NA
11	33.0NA
12	5.00NA
13	2.50NA
14	10.5NA
15	2.00NA
16	2.00NA
17	1.50NA
18	1.00NA
19	1.50NA
20	2.50NA
21	1.00NA
22	1.50NA
23	2.00NA
24	500.PA
25	1.00NA
26	500.PA
27	1.00NA
28	500.PA
29	500.PA
30	3.50NA
31	1.50NA
32	1.00NA
33	1.50NA
34	5.50NA
35	500.PA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	3.42NA
STD DEV	5.89NA
MEDIAN	1.75NA
MIN VALUE	500.PA
MAX VALUE	33.0NA
NUMBER	30

INITIAL DATA

ADDRESS ACCESS TIME (TAA) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	170.NS	145.NS	130.NS
5	180.NS	155.NS	135.NS
6	190.NS	160.NS	145.NS
7	185.NS	160.NS	150.NS
8	170.NS	145.NS	130.NS
9	175.NS	150.NS	135.NS
10	175.NS	150.NS	135.NS
11	150.NS	130.NS	115.NS
12	115.NS	105.NS	100.NS
13	170.NS	145.NS	130.NS
14	185.NS	155.NS	140.NS
15	120.NS	110.NS	100.NS
16	230.NS	185.NS	165.NS
17	175.NS	150.NS	135.NS
18	170.NS	145.NS	135.NS
19	210.NS	175.NS	155.NS
20	155.NS	135.NS	120.NS
21	235.NS	200.NS	180.NS
22	190.NS	165.NS	150.NS
23	175.NS	150.NS	140.NS
24	160.NS	140.NS	130.NS
25	205.NS	175.NS	160.NS
26	160.NS	135.NS	125.NS
27	175.NS	150.NS	135.NS
28	185.NS	155.NS	145.NS
29	175.NS	150.NS	135.NS
30	170.NS	145.NS	135.NS
31	165.NS	140.NS	130.NS
32	230.NS	210.NS	1.00KS *
33	205.NS	175.NS	165.NS
34	255.NS *	220.NS	200.NS
35	125.NS	115.NS	110.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	179.NS	154.NS	139.NS
STD DEV	31.6NS	25.9NS	21.4NS
MEDIAN	175.NS	150.NS	135.NS
MIN VALUE	115.NS	105.NS	100.NS
MAX VALUE	255.NS	220.NS	200.NS
NUMBER	30	30	29

INITIAL DATA

DATA SETUP TIME (TDS) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	20.0NS	18.0NS	18.0NS
5	18.0NS	18.0NS	18.0NS
6	14.0NS	12.0NS	14.0NS
7	10.0NS	12.0NS	16.0NS
8	12.0NS	14.0NS	16.0NS
9	12.0NS	12.0NS	16.0NS
10	18.0NS	16.0NS	18.0NS
11	12.0NS	12.0NS	14.0NS
12	14.0NS	12.0NS	12.0NS
13	16.0NS	16.0NS	16.0NS
14	20.0NS	14.0NS	16.0NS
15	10.0NS	10.0NS	12.0NS
16	16.0NS	18.0NS	22.0NS
17	18.0NS	14.0NS	16.0NS
18	20.0NS	18.0NS	18.0NS
19	16.0NS	16.0NS	22.0NS
20	14.0NS	14.0NS	14.0NS
21	22.0NS	18.0NS	20.0NS
22	12.0NS	12.0NS	14.0NS
23	12.0NS	12.0NS	16.0NS
24	8.00NS	10.0NS	12.0NS
25	26.0NS	24.0NS	22.0NS
26	12.0NS	12.0NS	14.0NS
27	14.0NS	14.0NS	16.0NS
28	14.0NS	14.0NS	16.0NS
29	20.0NS	16.0NS	16.0NS
30	16.0NS	16.0NS	16.0NS
31	12.0NS	12.0NS	14.0NS
32	20.0NS	18.0NS	16.0NS
33	18.0NS	16.0NS	18.0NS
34	18.0NS	16.0NS	18.0NS
35	12.0NS	12.0NS	12.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	15.3NS	14.4NS	16.1NS
STD DEV	4.02NS	2.94NS	2.76NS
MEDIAN	14.0NS	14.0NS	16.0NS
MIN VALUE	8.00NS	10.0NS	12.0NS
MAX VALUE	26.0NS	24.0NS	22.0NS
NUMBER	30	30	30

INITIAL DATA

DATA HOLD TIME (TDH) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	14.0NS	16.0NS	20.0NS
5	16.0NS	20.0NS	22.0NS
6	20.0NS	24.0NS	28.0NS
7	20.0NS	22.0NS	28.0NS
8	18.0NS	22.0NS	26.0NS
9	18.0NS	22.0NS	26.0NS
10	14.0NS	18.0NS	22.0NS
11	16.0NS	20.0NS	22.0NS
12	14.0NS	16.0NS	18.0NS
13	16.0NS	18.0NS	22.0NS
14	16.0NS	20.0NS	22.0NS
15	18.0NS	20.0NS	22.0NS
16	22.0NS	26.0NS	30.0NS
17	16.0NS	20.0NS	22.0NS
18	16.0NS	20.0NS	22.0NS
19	22.0NS	26.0NS	30.0NS
20	18.0NS	20.0NS	24.0NS
21	20.0NS	22.0NS	28.0NS
22	18.0NS	22.0NS	26.0NS
23	20.0NS	22.0NS	26.0NS
24	20.0NS	24.0NS	28.0NS
25	16.0NS	20.0NS	24.0NS
26	18.0NS	20.0NS	22.0NS
27	18.0NS	22.0NS	26.0NS
28	18.0NS	22.0NS	26.0NS
29	16.0NS	20.0NS	22.0NS
30	16.0NS	18.0NS	22.0NS
31	18.0NS	22.0NS	26.0NS
32	20.0NS	24.0NS	28.0NS
33	16.0NS	20.0NS	24.0NS
34	16.0NS	20.0NS	22.0NS
35	16.0NS	18.0NS	20.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	17.7NS	21.0NS	24.5NS
STD DEV	2.07NS	2.29NS	3.00NS
MEDIAN	18.0NS	20.0NS	24.0NS
MIN VALUE	14.0NS	16.0NS	18.0NS
MAX VALUE	22.0NS	26.0NS	30.0NS
NUMBER	30	30	30

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

INITIAL DATA

WRITE PULSE WIDTH (TWP) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	66.0NS	60.0NS	54.0NS
5	66.0NS	60.0NS	54.0NS
6	56.0NS	52.0NS	46.0NS
7	54.0NS	48.0NS	46.0NS
8	52.0NS	46.0NS	42.0NS
9	48.0NS	46.0NS	42.0NS
10	62.0NS	56.0NS	52.0NS
11	48.0NS	46.0NS	42.0NS
12	56.0NS	54.0NS	50.0NS
13	54.0NS	48.0NS	46.0NS
14	60.0NS	54.0NS	48.0NS
15	48.0NS	46.0NS	42.0NS
16	60.0NS	54.0NS	50.0NS
17	60.0NS	54.0NS	48.0NS
18	66.0NS	60.0NS	54.0NS
19	62.0NS	54.0NS	52.0NS
20	54.0NS	48.0NS	46.0NS
21	76.0NS	68.0NS	62.0NS
22	54.0NS	48.0NS	46.0NS
23	52.0NS	46.0NS	44.0NS
24	48.0NS	46.0NS	42.0NS
25	78.0NS	70.0NS	64.0NS
26	52.0NS	46.0NS	44.0NS
27	54.0NS	48.0NS	46.0NS
28	56.0NS	52.0NS	48.0NS
29	62.0NS	56.0NS	52.0NS
30	62.0NS	54.0NS	52.0NS
31	50.0NS	46.0NS	42.0NS
32	72.0NS	64.0NS	1.00KS *
33	64.0NS	58.0NS	54.0NS
34	64.0NS	60.0NS	54.0NS
35	56.0NS	52.0NS	48.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	58.0NS	52.7NS	48.4NS
STD DEV	7.75NS	6.58NS	5.57NS
MEDIAN	56.0NS	52.0NS	48.0NS
MIN VALUE	48.0NS	46.0NS	42.0NS
MAX VALUE	78.0NS	70.0NS	64.0NS
NUMBER	30	30	29

INITIAL DATA

ADDRESS SETUP TIME (TAS) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	20.0NS	20.0NS	22.0NS
5	28.0NS	28.0NS	28.0NS
6	30.0NS	28.0NS	28.0NS
7	26.0NS	26.0NS	30.0NS
8	26.0NS	24.0NS	26.0NS
9	24.0NS	24.0NS	28.0NS
10	24.0NS	24.0NS	26.0NS
11	24.0NS	22.0NS	24.0NS
12	18.0NS	18.0NS	20.0NS
13	26.0NS	24.0NS	26.0NS
14	28.0NS	26.0NS	28.0NS
15	20.0NS	20.0NS	22.0NS
16	42.0NS	34.0NS	32.0NS
17	26.0NS	26.0NS	28.0NS
18	28.0NS	26.0NS	28.0NS
19	38.0NS	30.0NS	30.0NS
20	26.0NS	26.0NS	26.0NS
21	32.0NS	32.0NS	32.0NS
22	30.0NS	28.0NS	30.0NS
23	26.0NS	26.0NS	28.0NS
24	22.0NS	24.0NS	26.0NS
25	28.0NS	28.0NS	30.0NS
26	24.0NS	24.0NS	24.0NS
27	26.0NS	26.0NS	28.0NS
28	26.0NS	26.0NS	26.0NS
29	26.0NS	26.0NS	26.0NS
30	24.0NS	24.0NS	26.0NS
31	24.0NS	26.0NS	28.0NS
32	32.0NS	32.0NS	36.0NS
33	28.0NS	28.0NS	28.0NS
34	76.0NS *	72.0NS *	70.0NS
35	22.0NS	22.0NS	22.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	28.4NS	27.4NS	28.7NS
STD DEV	10.0NS	8.92NS	8.29NS
MEDIAN	26.0NS	26.0NS	28.0NS
MIN VALUE	18.0NS	18.0NS	20.0NS
MAX VALUE	76.0NS	72.0NS	70.0NS
NUMBER	30	30	30

INITIAL DATA

ADDRESS HOLD TIME (TAH) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	-8.00NS	-4.00NS	0.00 S
5	-8.00NS	-4.00NS	2.00NS
6	-4.00NS	2.00NS	6.00NS
7	-4.00NS	0.00 S	4.00NS
8	-4.00NS	0.00 S	4.00NS
9	-4.00NS	0.00 S	4.00NS
10	-8.00NS	-4.00NS	2.00NS
11	-4.00NS	0.00 S	4.00NS
12	-6.00NS	-4.00NS	0.00 S
13	-8.00NS	-4.00NS	2.00NS
14	-6.00NS	-2.00NS	2.00NS
15	-4.00NS	0.00 S	2.00NS
16	-6.00NS	-2.00NS	4.00NS
17	-6.00NS	-2.00NS	4.00NS
18	-8.00NS	-4.00NS	0.00 S
19	-6.00NS	-2.00NS	4.00NS
20	-4.00NS	0.00 S	4.00NS
21	-8.00NS	-2.00NS	4.00NS
22	-6.00NS	0.00 S	4.00NS
23	-4.00NS	2.00NS	6.00NS
24	-2.00NS	4.00NS	8.00NS
25	-8.00NS	-4.00NS	2.00NS
26	-4.00NS	0.00 S	4.00NS
27	-4.00NS	0.00 S	6.00NS
28	-6.00NS	0.00 S	4.00NS
29	-8.00NS	-4.00NS	2.00NS
30	-6.00NS	-2.00NS	2.00NS
31	-4.00NS	2.00NS	6.00NS
32	-6.00NS	0.00 S	4.00NS
33	-8.00NS	-4.00NS	2.00NS
34	-8.00NS	-4.00NS	2.00NS
35	-4.00NS	-2.00NS	2.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-5.60NS	-1.20NS	3.47NS
STD DEV	1.74NS	2.17NS	1.78NS
MEDIAN	-6.00NS	-1.00NS	4.00NS
MIN VALUE	-8.00NS	-4.00NS	0.00 S
MAX VALUE	-2.00NS	4.00NS	8.00NS
NUMBER	30	30	30

INITIAL DATA

CHIP ENABLE TO WRITE TIME (TWS) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	64.0NS	56.0NS	50.0NS
5	64.0NS	56.0NS	50.0NS
6	56.0NS	48.0NS	42.0NS
7	50.0NS	44.0NS	34.0NS
8	48.0NS	44.0NS	38.0NS
9	46.0NS	40.0NS	34.0NS
10	62.0NS	54.0NS	48.0NS
11	46.0NS	42.0NS	36.0NS
12	54.0NS	50.0NS	46.0NS
13	52.0NS	46.0NS	40.0NS
14	58.0NS	52.0NS	46.0NS
15	46.0NS	42.0NS	38.0NS
16	56.0NS	50.0NS	40.0NS
17	58.0NS	50.0NS	44.0NS
18	64.0NS	58.0NS	50.0NS
19	58.0NS	52.0NS	42.0NS
20	50.0NS	44.0NS	38.0NS
21	74.0NS *	64.0NS	56.0NS
22	50.0NS	44.0NS	38.0NS
23	50.0NS	44.0NS	36.0NS
24	46.0NS	40.0NS	34.0NS
25	76.0NS *	68.0NS	60.0NS
26	48.0NS	44.0NS	38.0NS
27	52.0NS	46.0NS	40.0NS
28	54.0NS	48.0NS	42.0NS
29	62.0NS	54.0NS	48.0NS
30	58.0NS	52.0NS	46.0NS
31	48.0NS	42.0NS	36.0NS
32	72.0NS *	64.0NS	1.00KS *
33	64.0NS	56.0NS	48.0NS
34	64.0NS	56.0NS	50.0NS
35	54.0NS	48.0NS	44.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	55.9NS	49.5NS	42.5NS
STD DEV	8.25NS	7.17NS	6.43NS
MEDIAN	54.0NS	48.0NS	42.0NS
MIN VALUE	46.0NS	40.0NS	34.0NS
MAX VALUE	76.0NS	68.0NS	60.0NS
NUMBER	30	30	29

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

INITIAL DATA

READ CYCLE TIME (TRC) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	180.NS	160.NS	145.NS
5	175.NS	155.NS	145.NS
6	190.NS	160.NS	145.NS
7	180.NS	155.NS	140.NS
8	175.NS	150.NS	135.NS
9	165.NS	145.NS	135.NS
10	175.NS	155.NS	140.NS
11	155.NS	130.NS	120.NS
12	135.NS	125.NS	120.NS
13	175.NS	155.NS	140.NS
14	180.NS	160.NS	145.NS
15	130.NS	120.NS	115.NS
16	225.NS	180.NS	160.NS
17	180.NS	155.NS	145.NS
18	175.NS	155.NS	145.NS
19	210.NS	170.NS	150.NS
20	160.NS	140.NS	130.NS
21	230.NS	200.NS	185.NS
22	190.NS	165.NS	150.NS
23	170.NS	150.NS	135.NS
24	150.NS	135.NS	125.NS
25	210.NS	185.NS	170.NS
26	160.NS	140.NS	130.NS
27	175.NS	155.NS	145.NS
28	185.NS	160.NS	145.NS
29	175.NS	155.NS	140.NS
30	175.NS	155.NS	145.NS
31	165.NS	145.NS	135.NS
32	240.NS	215.NS	1.00KS *
33	190.NS	165.NS	150.NS
34	190.NS	170.NS	155.NS
35	145.NS	135.NS	130.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	179.NS	156.NS	142.NS
STD DEV	25.2NS	20.1NS	14.4NS
MEDIAN	175.NS	155.NS	140.NS
MIN VALUE	130.NS	120.NS	115.NS
MAX VALUE	240.NS	215.NS	185.NS
NUMBER	30	30	29

INITIAL DATA

WRITE CYCLE TIME (TWC) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	96.0NS	90.0NS	86.0NS
5	104.NS	98.0NS	92.0NS
6	96.0NS	90.0NS	84.0NS
7	90.0NS	84.0NS	86.0NS
8	88.0NS	80.0NS	80.0NS
9	82.0NS	80.0NS	80.0NS
10	96.0NS	90.0NS	88.0NS
11	82.0NS	80.0NS	80.0NS
12	84.0NS	82.0NS	80.0NS
13	90.0NS	82.0NS	82.0NS
14	98.0NS	90.0NS	86.0NS
15	80.0NS	80.0NS	80.0NS
16	112.NS	98.0NS	92.0NS
17	96.0NS	90.0NS	86.0NS
18	104.NS	96.0NS	92.0NS
19	110.NS	94.0NS	92.0NS
20	90.0NS	84.0NS	82.0NS
21	118.NS	110.NS	104.NS
22	94.0NS	86.0NS	86.0NS
23	88.0NS	82.0NS	82.0NS
24	80.0NS	80.0NS	80.0NS
25	116.NS	108.NS	104.NS
26	86.0NS	80.0NS	80.0NS
27	90.0NS	84.0NS	84.0NS
28	92.0NS	88.0NS	84.0NS
29	98.0NS	92.0NS	88.0NS
30	96.0NS	88.0NS	88.0NS
31	84.0NS	82.0NS	80.0NS
32	114.NS	106.NS	1.00KS *
33	102.NS	96.0NS	92.0NS
34	149.NS	141.NS	133.NS
35	88.0NS	84.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	96.4NS	90.2NS	87.4NS
STD DEV	14.4NS	12.6NS	10.7NS
MEDIAN	93.0NS	87.0NS	84.0NS
MIN VALUE	80.0NS	80.0NS	80.0NS
MAX VALUE	149.NS	141.NS	133.NS
NUMBER	30	30	29

INITIAL DATA

CHIP ENABLE TIME (TEN) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	32.0NS	28.0NS	26.0NS
5	34.0NS	30.0NS	26.0NS
6	34.0NS	30.0NS	26.0NS
7	32.0NS	28.0NS	26.0NS
8	30.0NS	26.0NS	24.0NS
9	28.0NS	24.0NS	22.0NS
10	32.0NS	28.0NS	26.0NS
11	26.0NS	24.0NS	22.0NS
12	28.0NS	24.0NS	22.0NS
13	32.0NS	28.0NS	26.0NS
14	36.0NS	32.0NS	28.0NS
15	28.0NS	24.0NS	22.0NS
16	34.0NS	30.0NS	26.0NS
17	34.0NS	30.0NS	28.0NS
18	32.0NS	28.0NS	26.0NS
19	32.0NS	28.0NS	26.0NS
20	30.0NS	26.0NS	24.0NS
21	46.0NS	40.0NS	36.0NS
22	32.0NS	28.0NS	26.0NS
23	30.0NS	26.0NS	24.0NS
24	28.0NS	24.0NS	22.0NS
25	38.0NS	32.0NS	30.0NS
26	28.0NS	24.0NS	22.0NS
27	34.0NS	30.0NS	26.0NS
28	32.0NS	28.0NS	26.0NS
29	34.0NS	28.0NS	26.0NS
30	32.0NS	28.0NS	24.0NS
31	28.0NS	26.0NS	24.0NS
32	38.0NS	34.0NS	30.0NS
33	34.0NS	30.0NS	28.0NS
34	34.0NS	30.0NS	26.0NS
35	28.0NS	26.0NS	22.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	32.1NS	28.1NS	25.5NS
STD DEV	3.96NS	3.42NS	3.00NS
MEDIAN	32.0NS	28.0NS	26.0NS
MIN VALUE	26.0NS	24.0NS	22.0NS
MAX VALUE	46.0NS	40.0NS	36.0NS
NUMBER	30	30	30

INITIAL DATA

OUTPUT VOLTAGE LOW (VOL) AT 125 C

SERIAL NO.	
4	145.MV
5	165.MV
6	185.MV
7	170.MV
8	170.MV
9	145.MV
10	155.MV
11	140.MV
12	135.MV
13	170.MV
14	185.MV
15	150.MV
16	175.MV
17	175.MV
18	160.MV
19	165.MV
20	155.MV
21	230.MV
22	165.MV
23	150.MV
24	150.MV
25	185.MV
26	150.MV
27	175.MV
28	175.MV
29	155.MV
30	155.MV
31	145.MV
32	200.MV
33	175.MV
34	170.MV
35	145.MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	165.MV
STD DEV	19.4MV
MEDIAN	165.MV
MIN VALUE	135.MV
MAX VALUE	230.MV
NUMBER	30

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

INITIAL DATA

OUTPUT VOLTAGE HIGH (VOH1) AT 125 C

SERIAL NO.	
4	4.33 V
5	4.32 V
6	4.32 V
7	4.32 V
8	4.33 V
9	4.34 V
10	4.34 V
11	4.36 V
12	4.34 V
13	4.32 V
14	4.30 V
15	4.33 V
16	4.33 V
17	4.32 V
18	4.32 V
19	4.33 V
20	4.34 V
21	4.28 V
22	4.32 V
23	4.34 V
24	4.34 V
25	4.30 V
26	4.34 V
27	4.32 V
28	4.32 V
29	4.32 V
30	4.34 V
31	4.34 V
32	4.29 V
33	4.31 V
34	4.32 V
35	4.33 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.60 V
MEAN	4.33 V
STD DEV	16.7MV
MEDIAN	4.33 V
MIN VALUE	4.28 V
MAX VALUE	4.36 V
NUMBER	30

INITIAL DATA

OUTPUT VOLTAGE HIGH (VOH2) AT 125 C

SERIAL NO.	
4	4.84 V
5	4.83 V
6	4.82 V
7	4.82 V
8	4.83 V
9	4.84 V
10	4.84 V
11	4.85 V
12	4.84 V
13	4.82 V
14	4.81 V
15	4.82 V
16	4.83 V
17	4.82 V
18	4.83 V
19	4.84 V
20	4.84 V
21	4.80 V
22	4.82 V
23	4.84 V
24	4.84 V
25	4.80 V
26	4.84 V
27	4.83 V
28	4.82 V
29	4.84 V
30	4.84 V
31	4.84 V
32	4.80 V
33	4.82 V
34	4.82 V
35	4.83 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.83 V
STD DEV	13.8MV
MEDIAN	4.83 V
MIN VALUE	4.80 V
MAX VALUE	4.85 V
NUMBER	30

INITIAL DATA

AVERAGE INPUT LOW CURRENT (IIL) AT 125 C

SERIAL NO.	
4	-249.NA
5	-357.NA
6	-141.NA
7	-275.NA
8	-97.8NA
9	-455.NA
10	-156.NA
11	-40.7NA
12	-206.NA
13	-157.NA
14	-146.NA
15	-233.NA
16	-99.2NA
17	-147.NA
18	-195.NA
19	-133.NA
20	-94.8NA
21	-124.NA
22	-481.NA
23	-312.NA
24	-116.NA
25	-155.NA
26	-141.NA
27	-118.NA
28	-148.NA
29	-302.NA
30	-216.NA
31	-430.NA
32	-162.NA
33	-281.NA
34	-243.NA
35	-225.NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-201.NA
STD DEV	106.NA
MEDIAN	-156.NA
MIN VALUE	-481.NA
MAX VALUE	-40.7NA
NUMBER	30

INITIAL DATA

WORST CASE INPUT LOW CURRENT (IIL) AT 125 C

SERIAL NO.	
4	-261.NA
5	-391.NA
6	-154.NA
7	-316.NA
8	-107.NA
9	-500.NA
10	-178.NA
11	73.0NA
12	-233.NA
13	-171.NA
14	-160.NA
15	-266.NA
16	-108.NA
17	-160.NA
18	-240.NA
19	-141.NA
20	-108.NA
21	-164.NA
22	-512.NA
23	-381.NA
24	-130.NA
25	-182.NA
26	-156.NA
27	-130.NA
28	-158.NA
29	-324.NA
30	-228.NA
31	-469.NA
32	-183.NA
33	-308.NA
34	-265.NA
35	-239.NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-220.NA
STD DEV	124.NA
MEDIAN	-180.NA
MIN VALUE	-512.NA
MAX VALUE	73.0NA
NUMBER	30

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

INITIAL DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT 125 C

SERIAL NO.		
4	273.NA	
5	368.NA	
6	153.NA	
7	299.NA	
8	109.NA	
9	448.NA	
10	669.NA	*
11	1.23UA	*
12	216.NA	
13	138.NA	
14	160.NA	
15	249.NA	
16	106.NA	
17	163.NA	
18	224.NA	
19	147.NA	
20	91.4NA	
21	128.NA	
22	507.NA	*
23	348.NA	
24	124.NA	
25	169.NA	
26	149.NA	
27	127.NA	
28	163.NA	
29	358.NA	
30	212.NA	
31	431.NA	
32	219.NA	
33	307.NA	
34	250.NA	
35	232.NA	

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	271.NA
STD DEV	221.NA
MEDIAN	214.NA
MIN VALUE	91.4NA
MAX VALUE	1.23UA
NUMBER	30

INITIAL DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT 125 C

SERIAL NO.	
4	323.NA
5	416.NA
6	181.NA
7	331.NA
8	128.NA
9	513.NA *
10	2.26UA *
11	8.45UA *
12	247.NA
13	167.NA
14	188.NA
15	291.NA
16	122.NA
17	186.NA
18	259.NA
19	170.NA
20	105.NA
21	165.NA
22	571.NA *
23	574.NA *
24	140.NA
25	190.NA
26	170.NA
27	148.NA
28	187.NA
29	407.NA
30	261.NA
31	489.NA
32	240.NA
33	343.NA
34	283.NA
35	262.NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	601.NA
STD DEV	1.51UA
MEDIAN	244.NA
MIN VALUE	105.NA
MAX VALUE	8.45UA
NUMBER	30

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

INITIAL DATA

SUPPLY CURRENT (ICC1B0) AT 125 C

SERIAL NO.	
4	746.UA
5	259.UA
6	196.UA
7	357.UA
8	161.UA
9	468.UA
10	121.UA
11	79.6UA
12	238.UA
13	162.UA
14	116.UA
15	407.UA
16	126.UA
17	105.UA
18	148.UA
19	137.UA
20	107.UA
21	94.4UA
22	342.UA
23	309.UA
24	172.UA
25	245.UA
26	211.UA
27	179.UA
28	177.UA
29	645.UA
30	319.UA
31	365.UA
32	87.2UA
33	192.UA
34	686.UA
35	285.UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	241.UA
STD DEV	152.UA
MEDIAN	186.UA
MIN VALUE	79.6UA
MAX VALUE	686.UA
NUMBER	30

INITIAL DATA

SUPPLY CURRENT (ICC1B1) AT 125 C

SERIAL NO.	
4	1.16MA *
5	296.UA
6	256.UA
7	331.UA
8	153.UA
9	407.UA
10	127.UA
11	82.5UA
12	299.UA
13	182.UA
14	119.UA
15	350.UA
16	116.UA
17	104.UA
18	164.UA
19	123.UA
20	116.UA
21	97.4UA
22	289.UA
23	278.UA
24	173.UA
25	371.UA
26	202.UA
27	171.UA
28	163.UA
29	634.UA
30	434.UA
31	337.UA
32	85.7UA
33	1.19MA *
34	942.UA
35	267.UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	285.UA
STD DEV	245.UA
MEDIAN	192.UA
MIN VALUE	82.5UA
MAX VALUE	1.19MA
NUMBER	30

INITIAL DATA

SUPPLY CURRENT (ICC2B0) AT 125 C

SERIAL NO.	
4	734.UA
5	443.UA
6	213.UA
7	407.UA
8	174.UA
9	537.UA
10	130.UA
11	85.9UA
12	271.UA
13	179.UA
14	128.UA
15	469.UA
16	141.UA
17	124.UA
18	154.UA
19	155.UA
20	117.UA
21	99.5UA
22	777.UA
23	352.UA
24	197.UA
25	258.UA
26	240.UA
27	147.UA
28	199.UA
29	177.UA
30	319.UA
31	421.UA
32	9.21MA *
33	250.UA
34	700.UA
35	327.UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	565.UA
STD DEV	1.61MA
MEDIAN	206.UA
MIN VALUE	85.9UA
MAX VALUE	9.21MA
NUMBER	30

INITIAL DATA

SUPPLY CURRENT (ICC2B1) AT 125 C

SERIAL NO.	
4	857.UA
5	390.UA
6	244.UA
7	292.UA
8	134.UA
9	349.UA
10	98.0UA
11	60.9UA
12	206.UA
13	140.UA
14	94.4UA
15	287.UA
16	93.2UA
17	88.6UA
18	122.UA
19	99.7UA
20	87.7UA
21	73.5UA
22	626.UA
23	233.UA
24	149.UA
25	276.UA
26	162.UA
27	100.UA
28	131.UA
29	117.UA
30	307.UA
31	288.UA
32	9.19MA *
33	1.21MA *
34	707.UA
35	213.UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	539.UA
STD DEV	1.62MA
MEDIAN	156.UA
MIN VALUE	60.9UA
MAX VALUE	9.19MA
NUMBER	30

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

INITIAL DATA

OUTPUT LEAKAGE CURRENT (IOL) AT 125 C

SERIAL NO.	
4	21.7UA *
5	4.74UA *
6	1.14UA *
7	1.83UA *
8	850.NA
9	1.88UA *
10	1.69UA *
11	893.NA
12	3.37UA *
13	2.79UA *
14	1.11UA *
15	1.93UA *
16	880.NA
17	1.14UA *
18	2.61UA *
19	883.NA
20	1.38UA *
21	1.00UA
22	1.64UA *
23	1.34UA *
24	1.03UA *
25	5.35UA *
26	1.58UA *
27	804.NA
28	1.18UA *
29	1.54UA *
30	11.4UA *
31	1.52UA *
32	1.00UA
33	2.62UA *
34	13.0UA *
35	2.00UA *

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	2.38UA
STD DEV	2.80UA
MEDIAN	1.53UA
MIN VALUE	804.NA
MAX VALUE	13.0UA
NUMBER	30

POST 168-HOUR BURN-IN DATA

POST 168HR DATA

ADDRESS ACCESS TIME (TAA) AT 25 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	130.NS	110.NS	95.0NS
5	160.NS	130.NS	115.NS
6	215.NS	160.NS	135.NS
7	160.NS	115.NS	120.NS
8	185.NS	135.NS	115.NS
9	165.NS	130.NS	115.NS
10	160.NS	130.NS	115.NS
11	160.NS	125.NS	110.NS
12	100.NS	90.0NS	85.0NS
13	170.NS	130.NS	115.NS
14	185.NS	145.NS	125.NS
15	110.NS	95.0NS	90.0NS
16	215.NS	160.NS	135.NS
17	175.NS	140.NS	120.NS
18	160.NS	130.NS	115.NS
19	195.NS	150.NS	130.NS
20	150.NS	120.NS	105.NS
21	225.NS	175.NS	155.NS
22	210.NS	160.NS	135.NS
23	170.NS	135.NS	120.NS
25	175.NS	145.NS	130.NS
26	155.NS	125.NS	105.NS
27	170.NS	135.NS	120.NS
28	190.NS	145.NS	125.NS
30	150.NS	120.NS	110.NS
31	160.NS	130.NS	115.NS
32	255.NS *	195.NS	1.00KS *
33	205.NS	165.NS	145.NS
34	220.NS	175.NS	155.NS
35	110.NS	100.NS	90.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	175.NS	138.NS	120.NS
STD DEV	34.9NS	23.8NS	17.0NS
MEDIAN	170.NS	135.NS	120.NS
MIN VALUE	100.NS	90.0NS	85.0NS
MAX VALUE	255.NS	195.NS	155.NS
NUMBER	28	28	27

POST 168HR DATA

DATA SETUP TIME (TDS) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	16.0NS	14.0NS	14.0NS
5	20.0NS	16.0NS	14.0NS
6	14.0NS	14.0NS	14.0NS
7	10.0NS	10.0NS	14.0NS
8	14.0NS	12.0NS	10.0NS
9	10.0NS	10.0NS	14.0NS
10	18.0NS	16.0NS	14.0NS
11	12.0NS	10.0NS	10.0NS
12	14.0NS	12.0NS	10.0NS
13	16.0NS	14.0NS	12.0NS
14	20.0NS	14.0NS	14.0NS
15	12.0NS	8.00NS	10.0NS
16	14.0NS	14.0NS	16.0NS
17	20.0NS	14.0NS	14.0NS
18	20.0NS	18.0NS	16.0NS
19	14.0NS	14.0NS	18.0NS
20	14.0NS	12.0NS	10.0NS
21	20.0NS	16.0NS	16.0NS
22	14.0NS	10.0NS	12.0NS
23	12.0NS	12.0NS	14.0NS
25	26.0NS	20.0NS	20.0NS
26	14.0NS	10.0NS	10.0NS
27	14.0NS	12.0NS	12.0NS
28	16.0NS	14.0NS	14.0NS
30	16.0NS	12.0NS	12.0NS
31	10.0NS	10.0NS	12.0NS
32	24.0NS	18.0NS	22.0NS
33	20.0NS	16.0NS	14.0NS
34	14.0NS	12.0NS	14.0NS
35	14.0NS	12.0NS	10.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	15.6NS	13.1NS	13.5NS
STD DEV	3.98NS	2.80NS	3.01NS
MEDIAN	14.0NS	12.0NS	14.0NS
MIN VALUE	10.0NS	8.00NS	10.0NS
MAX VALUE	26.0NS	20.0NS	22.0NS
NUMBER	28	28	28

POST 168HR DATA

DATA HOLD TIME (TDH) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	14.0NS	16.0NS	18.0NS
5	18.0NS	18.0NS	22.0NS
6	22.0NS	26.0NS	30.0NS
7	18.0NS	22.0NS	26.0NS
8	18.0NS	20.0NS	26.0NS
9	20.0NS	22.0NS	26.0NS
10	14.0NS	18.0NS	20.0NS
11	16.0NS	20.0NS	22.0NS
12	14.0NS	18.0NS	18.0NS
13	16.0NS	18.0NS	22.0NS
14	18.0NS	20.0NS	22.0NS
15	18.0NS	20.0NS	22.0NS
16	20.0NS	22.0NS	26.0NS
17	18.0NS	20.0NS	22.0NS
18	18.0NS	18.0NS	22.0NS
19	22.0NS	22.0NS	26.0NS
20	18.0NS	20.0NS	22.0NS
21	20.0NS	22.0NS	26.0NS
22	20.0NS	22.0NS	26.0NS
23	18.0NS	22.0NS	26.0NS
25	16.0NS	18.0NS	22.0NS
26	16.0NS	20.0NS	22.0NS
27	18.0NS	22.0NS	26.0NS
28	18.0NS	20.0NS	26.0NS
30	16.0NS	18.0NS	20.0NS
31	18.0NS	22.0NS	26.0NS
32	22.0NS	26.0NS	30.0NS
33	18.0NS	18.0NS	22.0NS
34	16.0NS	18.0NS	22.0NS
35	18.0NS	18.0NS	20.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	18.0NS	20.4NS	23.8NS
STD DEV	2.07NS	2.23NS	2.94NS
MEDIAN	18.0NS	20.0NS	22.0NS
MIN VALUE	14.0NS	18.0NS	18.0NS
MAX VALUE	22.0NS	26.0NS	30.0NS
NUMBER	28	28	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

WRITE PULSE WIDTH (TWP) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	48.0NS	44.0NS	38.0NS
5	54.0NS	46.0NS	40.0NS
6	56.0NS	46.0NS	40.0NS
7	42.0NS	38.0NS	38.0NS
8	40.0NS	38.0NS	32.0NS
9	40.0NS	38.0NS	32.0NS
10	50.0NS	46.0NS	40.0NS
11	42.0NS	38.0NS	32.0NS
12	46.0NS	46.0NS	40.0NS
13	46.0NS	38.0NS	32.0NS
14	48.0NS	44.0NS	38.0NS
15	40.0NS	38.0NS	36.0NS
16	46.0NS	44.0NS	38.0NS
17	48.0NS	46.0NS	38.0NS
18	54.0NS	48.0NS	46.0NS
19	48.0NS	46.0NS	40.0NS
20	46.0NS	38.0NS	36.0NS
21	62.0NS	54.0NS	48.0NS
22	44.0NS	38.0NS	38.0NS
23	46.0NS	38.0NS	36.0NS
25	60.0NS	54.0NS	46.0NS
26	40.0NS	38.0NS	32.0NS
27	46.0NS	38.0NS	38.0NS
28	46.0NS	42.0NS	38.0NS
30	46.0NS	44.0NS	38.0NS
31	40.0NS	38.0NS	32.0NS
32	68.0NS	54.0NS	54.0NS
33	54.0NS	46.0NS	40.0NS
34	48.0NS	44.0NS	40.0NS
35	46.0NS	40.0NS	38.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	47.9NS	42.9NS	38.4NS
STD DEV	7.03NS	5.19NS	5.11NS
MEDIAN	46.0NS	43.0NS	38.0NS
MIN VALUE	40.0NS	38.0NS	32.0NS
MAX VALUE	68.0NS	54.0NS	54.0NS
NUMBER	28	28	28

POST 168HR DATA

ADDRESS SETUP TIME (TAS) AT 25 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	20.0NS	18.0NS	18.0NS
5	28.0NS	24.0NS	22.0NS
6	56.0NS	38.0NS	30.0NS
7	40.0NS	30.0NS	26.0NS
8	54.0NS	32.0NS	26.0NS
9	46.0NS	32.0NS	28.0NS
10	30.0NS	22.0NS	22.0NS
11	40.0NS	26.0NS	24.0NS
12	16.0NS	16.0NS	16.0NS
13	38.0NS	26.0NS	22.0NS
14	38.0NS	28.0NS	24.0NS
15	18.0NS	16.0NS	18.0NS
16	68.0NS	40.0NS	34.0NS
17	34.0NS	26.0NS	24.0NS
18	30.0NS	22.0NS	22.0NS
19	60.0NS	38.0NS	32.0NS
20	30.0NS	22.0NS	22.0NS
21	36.0NS	26.0NS	26.0NS
22	60.0NS	40.0NS	34.0NS
23	44.0NS	32.0NS	28.0NS
25	30.0NS	24.0NS	24.0NS
26	36.0NS	26.0NS	22.0NS
27	34.0NS	26.0NS	24.0NS
28	46.0NS	30.0NS	26.0NS
30	28.0NS	22.0NS	22.0NS
31	42.0NS	30.0NS	26.0NS
32	56.0NS	38.0NS	32.0NS
33	34.0NS	24.0NS	22.0NS
34	86.0NS *	68.0NS	64.0NS
35	18.0NS	18.0NS	18.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	41.0NS	29.2NS	26.4NS
STD DEV	15.5NS	9.99NS	8.50NS
MEDIAN	38.0NS	26.0NS	24.0NS
MIN VALUE	16.0NS	16.0NS	16.0NS
MAX VALUE	86.0NS	68.0NS	64.0NS
NUMBER	28	28	28

POST 168HR DATA

ADDRESS HOLD TIME (TAH) AT 25 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	-6.00NS	-2.00NS	2.00NS
5	-6.00NS	-2.00NS	2.00NS
6	-4.00NS	2.00NS	6.00NS
7	-4.00NS	2.00NS	4.00NS
8	-4.00NS	0.00 S	4.00NS
9	-4.00NS	2.00NS	6.00NS
10	-6.00NS	-4.00NS	2.00NS
11	-4.00NS	0.00 S	4.00NS
12	-4.00NS	-2.00NS	2.00NS
13	-6.00NS	-2.00NS	2.00NS
14	-6.00NS	-2.00NS	2.00NS
15	-4.00NS	0.00 S	4.00NS
16	-6.00NS	0.00 S	4.00NS
17	-6.00NS	-2.00NS	4.00NS
18	-6.00NS	-4.00NS	2.00NS
19	-6.00NS	-2.00NS	4.00NS
20	-4.00NS	0.00 S	4.00NS
21	-8.00NS	-2.00NS	4.00NS
22	-4.00NS	2.00NS	6.00NS
23	-4.00NS	2.00NS	6.00NS
25	-8.00NS	-2.00NS	2.00NS
26	-4.00NS	0.00 S	4.00NS
27	-4.00NS	2.00NS	6.00NS
28	-4.00NS	0.00 S	4.00NS
30	-6.00NS	-2.00NS	2.00NS
31	-2.00NS	2.00NS	6.00NS
32	-4.00NS	0.00 S	4.00NS
33	-6.00NS	-2.00NS	2.00NS
34	-6.00NS	-2.00NS	2.00NS
35	-4.00NS	0.00 S	2.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-4.93NS	-500.PS	3.71NS
STD DEV	1.36NS	1.82NS	1.48NS
MEDIAN	-4.00NS	0.00 S	4.00NS
MIN VALUE	-8.00NS	-4.00NS	2.00NS
MAX VALUE	-2.00NS	2.00NS	6.00NS
NUMBER	28	28	28

POST 168HR DATA

CHIP ENABLE TO WRITE TIME (TWS) AT 25 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	48.0NS	40.0NS	34.0NS
5	50.0NS	42.0NS	36.0NS
6	56.0NS	44.0NS	36.0NS
7	40.0NS	34.0NS	30.0NS
8	42.0NS	36.0NS	30.0NS
9	40.0NS	32.0NS	26.0NS
10	52.0NS	42.0NS	36.0NS
11	38.0NS	34.0NS	28.0NS
12	50.0NS	40.0NS	36.0NS
13	40.0NS	34.0NS	30.0NS
14	52.0NS	40.0NS	34.0NS
15	40.0NS	36.0NS	30.0NS
16	46.0NS	40.0NS	32.0NS
17	52.0NS	40.0NS	34.0NS
18	56.0NS	48.0NS	40.0NS
19	50.0NS	42.0NS	34.0NS
20	40.0NS	34.0NS	32.0NS
21	62.0NS	48.0NS	40.0NS
22	42.0NS	38.0NS	30.0NS
23	40.0NS	34.0NS	28.0NS
25	60.0NS	50.0NS	42.0NS
26	40.0NS	34.0NS	28.0NS
27	46.0NS	38.0NS	32.0NS
28	46.0NS	36.0NS	32.0NS
30	48.0NS	40.0NS	34.0NS
31	40.0NS	34.0NS	28.0NS
32	68.0NS	56.0NS	52.0NS
33	52.0NS	46.0NS	38.0NS
34	48.0NS	42.0NS	36.0NS
35	46.0NS	38.0NS	34.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	47.6NS	39.6NS	33.6NS
STD DEV	7.64NS	5.73NS	5.32NS
MEDIAN	46.0NS	39.0NS	33.0NS
MIN VALUE	38.0NS	32.0NS	26.0NS
MAX VALUE	68.0NS	56.0NS	52.0NS
NUMBER	28	28	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

READ CYCLE TIME (TRC) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	130.NS	115.NS	105.NS
5	150.NS	130.NS	115.NS
6	180.NS	145.NS	125.NS
7	145.NS	125.NS	115.NS
8	165.NS	130.NS	115.NS
9	145.NS	125.NS	115.NS
10	155.NS	130.NS	115.NS
11	145.NS	120.NS	105.NS
12	105.NS	100.NS	100.NS
13	155.NS	125.NS	115.NS
14	165.NS	135.NS	120.NS
15	110.NS	100.NS	100.NS
16	185.NS	145.NS	125.NS
17	160.NS	135.NS	120.NS
18	150.NS	130.NS	115.NS
19	175.NS	140.NS	125.NS
20	140.NS	115.NS	105.NS
21	195.NS	160.NS	145.NS
22	180.NS	145.NS	130.NS
23	145.NS	125.NS	115.NS
25	165.NS	145.NS	130.NS
26	140.NS	120.NS	105.NS
27	150.NS	130.NS	115.NS
28	165.NS	135.NS	120.NS
30	145.NS	120.NS	110.NS
31	145.NS	125.NS	115.NS
32	215.NS	185.NS	165.NS
33	165.NS	135.NS	125.NS
34	150.NS	125.NS	115.NS
35	115.NS	105.NS	100.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	156.NS	131.NS	118.NS
STD DEV	23.5NS	17.0NS	13.5NS
MEDIAN	152.NS	130.NS	115.NS
MIN VALUE	105.NS	100.NS	100.NS
MAX VALUE	215.NS	185.NS	165.NS
NUMBER	28	28	28

POST 16cHR DATA

WRITE CYCLE TIME (TWC) AT 25 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	80.0NS	80.0NS	80.0NS
5	92.0NS	80.0NS	80.0NS
6	121.NS	99.0NS	80.0NS
7	92.0NS	80.0NS	80.0NS
8	104.NS	80.0NS	80.0NS
9	96.0NS	80.0NS	80.0NS
10	94.0NS	80.0NS	80.0NS
11	90.0NS	80.0NS	80.0NS
12	80.0NS	80.0NS	80.0NS
13	94.0NS	80.0NS	80.0NS
14	96.0NS	82.0NS	80.0NS
15	80.0NS	80.0NS	80.0NS
16	123.NS	94.0NS	82.0NS
17	92.0NS	82.0NS	80.0NS
18	94.0NS	80.0NS	80.0NS
19	118.NS	94.0NS	82.0NS
20	86.0NS	80.0NS	80.0NS
21	108.NS	90.0NS	84.0NS
22	114.NS	88.0NS	82.0NS
23	100.NS	80.0NS	80.0NS
25	100.NS	88.0NS	80.0NS
26	86.0NS	80.0NS	80.0NS
27	90.0NS	80.0NS	80.0NS
28	102.NS	82.0NS	80.0NS
30	84.0NS	80.0NS	80.0NS
31	92.0NS	80.0NS	80.0NS
32	133.NS	102.NS	96.0NS
33	98.0NS	80.0NS	80.0NS
34	144.NS	122.NS	114.NS
35	80.0NS	80.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	99.7NS	85.1NS	82.1NS
STD DEV	15.8NS	9.47NS	6.84NS
MEDIAN	95.0NS	80.0NS	80.0NS
MIN VALUE	80.0NS	80.0NS	80.0NS
MAX VALUE	144.NS	122.NS	114.NS
NUMBER	28	28	28

POST 168HR DATA

CHIP ENABLE TIME (TEN) AT 25 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	26.0NS	22.0NS	20.0NS
5	30.0NS	26.0NS	22.0NS
6	32.0NS	26.0NS	24.0NS
7	26.0NS	24.0NS	20.0NS
8	28.0NS	24.0NS	20.0NS
9	26.0NS	22.0NS	20.0NS
10	30.0NS	24.0NS	22.0NS
11	26.0NS	22.0NS	20.0NS
12	24.0NS	22.0NS	18.0NS
13	30.0NS	26.0NS	22.0NS
14	32.0NS	28.0NS	24.0NS
15	24.0NS	22.0NS	20.0NS
16	28.0NS	24.0NS	22.0NS
17	32.0NS	28.0NS	24.0NS
18	30.0NS	24.0NS	22.0NS
19	28.0NS	24.0NS	22.0NS
20	26.0NS	22.0NS	20.0NS
21	40.0NS	34.0NS	30.0NS
22	32.0NS	26.0NS	24.0NS
23	28.0NS	24.0NS	20.0NS
25	32.0NS	28.0NS	24.0NS
26	26.0NS	22.0NS	20.0NS
27	30.0NS	26.0NS	22.0NS
28	30.0NS	26.0NS	22.0NS
30	28.0NS	22.0NS	20.0NS
31	26.0NS	24.0NS	20.0NS
32	36.0NS	30.0NS	26.0NS
33	32.0NS	26.0NS	24.0NS
34	28.0NS	24.0NS	22.0NS
35	26.0NS	22.0NS	20.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	29.1NS	24.9NS	21.9NS
STD DEV	3.52NS	2.80NS	2.42NS
MEDIAN	28.0NS	24.0NS	22.0NS
MIN VALUE	24.0NS	22.0NS	18.0NS
MAX VALUE	40.0NS	34.0NS	30.0NS
NUMBER	28	28	28

POST 168HR DATA

OUTPUT VOLTAGE LOW (VOL) AT 25 C

SERIAL NO.	
4	115.MV
5	135.MV
6	155.MV
7	135.MV
8	140.MV
9	115.MV
10	130.MV
11	120.MV
12	110.MV
13	135.MV
14	155.MV
15	125.MV
16	135.MV
17	145.MV
18	130.MV
19	130.MV
20	125.MV
21	180.MV
22	135.MV
23	125.MV
25	145.MV
26	125.MV
27	145.MV
28	145.MV
30	125.MV
31	115.MV
32	160.MV
33	140.MV
34	130.MV
35	120.MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	135.MV
STD DEV	15.1MV
MEDIAN	132.MV
MIN VALUE	110.MV
MAX VALUE	180.MV
NUMBER	28

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 168HR DATA

OUTPUT VOLTAGE HIGH (VOH1) AT 25 C

SERIAL NO.	
4	4.39 V
5	4.38 V
6	4.38 V
7	4.38 V
8	4.39 V
9	4.40 V
10	4.38 V
11	4.39 V
12	4.39 V
13	4.38 V
14	4.36 V
15	4.39 V
16	4.39 V
17	4.36 V
18	4.38 V
19	4.38 V
20	4.39 V
21	4.35 V
22	4.38 V
23	4.39 V
25	4.36 V
26	4.39 V
27	4.38 V
28	4.38 V
30	4.39 V
31	4.40 V
32	4.36 V
33	4.36 V
34	4.38 V
35	4.38 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.60 V
MEAN	4.38 V
STD DEV	12.9MV
MEDIAN	4.38 V
MIN VALUE	4.35 V
MAX VALUE	4.40 V
NUMBER	28

POST 168HR DATA

OUTPUT VOLTAGE HIGH (VOH2) AT 25 C

SERIAL NO.	
4	4.89 V
5	4.89 V
6	4.88 V
7	4.88 V
8	4.89 V
9	4.90 V
10	4.89 V
11	4.89 V
12	4.89 V
13	4.89 V
14	4.88 V
15	4.89 V
16	4.89 V
17	4.88 V
18	4.88 V
19	4.89 V
20	4.89 V
21	4.86 V
22	4.88 V
23	4.89 V
25	4.86 V
26	4.90 V
27	4.89 V
28	4.88 V
30	4.89 V
31	4.89 V
32	4.86 V
33	4.87 V
34	4.88 V
35	4.89 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.89 V
STD DEV	10.4MV
MEDIAN	4.89 V
MIN VALUE	4.86 V
MAX VALUE	4.90 V
NUMBER	28

POST 168HR DATA

AVERAGE INPUT LOW CURRENT (IIL) AT 25 C

SERIAL NO.	
4	-1.08NA
5	-1.81NA
6	231.PA
7	-500.PA
8	962.PA
9	-1.62NA
10	-423.PA
11	231.PA
12	-154.PA
13	38.5PA
14	192.PA
15	-308.PA
16	346.PA
17	76.9PA
18	-423.PA
19	231.PA
20	462.PA
21	231.PA
22	-1.88NA
23	-1.12NA
25	0.00 A
26	231.PA
27	269.PA
28	192.PA
30	-577.PA
31	-1.58NA
32	76.9PA
33	-423.PA
34	-885.PA
35	-269.PA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-228.PA
STD DEV	660.PA
MEDIAN	19.2PA
MIN VALUE	-1.88NA
MAX VALUE	962.PA
NUMBER	28

POST 168HR DATA

WORST CASE INPUT LOW CURRENT (IIL) AT 25 C

SERIAL NO.	
4	-2.00NA
5	-2.50NA
6	500.PA
7	-1.50NA
8	7.50NA
9	-2.50NA
10	-1.00NA
11	500.PA
12	-500.PA
13	500.PA
14	500.PA
15	-1.00NA
16	1.00NA
17	500.PA
18	-1.00NA
19	1.00NA
20	1.50NA
21	500.PA
22	-2.50NA
23	-8.00NA
25	500.PA
26	500.PA
27	1.00NA
28	500.PA
30	-1.50NA
31	-4.50NA
32	500.PA
33	-1.00NA
34	-1.50NA
35	-1.00NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-375.PA
STD DEV	2.46NA
MEDIAN	500.PA
MIN VALUE	-8.00NA
MAX VALUE	7.50NA
NUMBER	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT 25 C

SERIAL NO.	
4	4.00NA
5	4.62NA
6	2.38NA
7	5.69NA
8	2.27NA
9	4.27NA
10	3.58NA
11	2.19NA
12	2.88NA
13	2.38NA
14	2.69NA
15	3.00NA
16	2.27NA
17	2.50NA
18	3.12NA
19	2.42NA
20	2.12NA
21	2.15NA
22	4.58NA
23	16.5NA
25	2.85NA
26	2.69NA
27	2.54NA
28	2.69NA
30	3.27NA
31	4.15NA
32	2.88NA
33	3.35NA
34	3.88NA
35	3.08NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	3.55NA
STD DEV	2.66NA
MEDIAN	2.87NA
MIN VALUE	2.12NA
MAX VALUE	16.5NA
NUMBER	28

POST 168HR DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT 25 C

SERIAL NO.	
4	5.00NA
5	5.00NA
6	3.00NA
7	43.5NA
8	3.00NA
9	5.00NA
10	4.50NA
11	3.00NA
12	3.50NA
13	3.00NA
14	3.50NA
15	3.50NA
16	3.00NA
17	3.50NA
18	4.00NA
19	3.00NA
20	3.00NA
21	3.00NA
22	5.50NA
23	175.NA
25	3.50NA
26	3.50NA
27	3.50NA
28	5.50NA
30	4.00NA
31	5.00NA
32	3.50NA
33	4.00NA
34	4.50NA
35	3.50NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	11.3NA
STD DEV	32.4NA
MEDIAN	3.50NA
MIN VALUE	3.00NA
MAX VALUE	175.NA
NUMBER	28

POST 168HR DATA

SUPPLY CURRENT (ICC1B0) AT 25 C

SERIAL NO.	
4	26.3UA
5	4.60UA
6	21.9UA
7	3.12UA
8	34.1UA
9	7.20UA
10	5.68UA
11	1.92UA
12	2.89UA
13	2.13UA
14	1.92UA
15	3.50UA
16	1.43UA
17	1.43UA
18	2.24UA
19	1.48UA
20	1.52UA
21	1.52UA
22	3.46UA
23	5.37UA
25	5.26UA
26	1.99UA
27	4.86UA
28	2.02UA
30	12.8UA
31	3.34UA
32	1.70UA
33	6.81UA
34	150.UA
35	2.77UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	10.5UA
STD DEV	27.7UA
MEDIAN	3.01UA
MIN VALUE	1.43UA
MAX VALUE	150.UA
NUMBER	28

POST 168HR DATA

SUPPLY CURRENT (ICC1B1) AT 25 C

SERIAL NO.	
4	104.UA
5	5.00UA
6	41.4UA
7	36.8UA
8	35.0UA
9	22.4UA
10	5.27UA
11	1.72UA
12	8.80UA
13	2.02UA
14	1.65UA
15	3.46UA
16	1.01UA
17	1.00UA
18	1.91UA
19	1.02UA
20	1.16UA
21	1.12UA
22	2.41UA
23	14.9UA
25	20.0UA
26	2.00UA
27	4.16UA
28	1.52UA
30	16.3UA
31	22.4UA
32	1.15UA
33	1.51MA *
34	163.UA
35	3.06UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	68.6UA
STD DEV	278.UA
MEDIAN	3.26UA
MIN VALUE	1.00UA
MAX VALUE	1.51MA
NUMBER	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

SUPPLY CURRENT (ICC280) AT 25 C

SERIAL NO.	
4	27.2UA
5	169.UA
6	21.6UA
7	2.94UA
8	36.0UA
9	6.57UA
10	5.18UA
11	1.60UA
12	5.16UA
13	5.24UA
14	1.28UA
15	3.92UA
16	1.27UA
17	7.54UA
18	1.59UA
19	1.24UA
20	1.11UA
21	920.NA
22	435.UA
23	3.50UA
25	6.02UA
26	2.15UA
27	2.67UA
28	1.60UA
30	6.20UA
31	3.15UA
32	10.2MA *
33	47.6UA
34	192.UA
35	3.10UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	394.UA
STD DEV	1.90MA
MEDIAN	3.71UA
MIN VALUE	920.NA
MAX VALUE	10.2MA
NUMBER	28

POST 168HR DATA

SUPPLY CURRENT (ICC281) AT 25 C

SERIAL NO.	
4	103.UA
5	168.UA
6	43.3UA
7	41.6UA
8	35.2UA
9	22.8UA
10	4.96UA
11	1.12UA
12	2.19UA
13	4.96UA
14	1.35UA
15	2.16UA
16	655.NA
17	7.20UA
18	1.27UA
19	840.NA
20	800.NA
21	600.NA
22	432.UA
23	13.2UA
25	16.8UA
26	1.34UA
27	2.24UA
28	880.NA
30	6.68UA
31	21.6UA
32	10.2MA *
33	1.52MA *
34	194.UA
35	1.77UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	451.UA
STD DEV	1.90MA
MEDIAN	4.96UA
MIN VALUE	600.NA
MAX VALUE	10.2MA
NUMBER	28

POST 168HR DATA

OUTPUT LEAKAGE CURRENT (IOL) AT 25 C

SERIAL NO.	
4	769.NA
5	73.5NA
6	11.0NA
7	12.5NA
8	7.00NA
9	14.0NA
10	25.0NA
11	19.5NA
12	31.0NA
13	31.5NA
14	11.0NA
15	11.0NA
16	7.00NA
17	11.5NA
18	30.0NA
19	7.50NA
20	11.0NA
21	9.00NA
22	16.0NA
23	11.5NA
25	83.0NA
26	13.0NA
27	7.50NA
28	10.0NA
30	301.NA
31	13.5NA
32	9.00NA
33	24.0NA
34	353.NA
35	15.0NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	39.5NA
STD DEV	81.3NA
MEDIAN	12.7NA
MIN VALUE	7.00NA
MAX VALUE	353.NA
NUMBER	28

POST 168HR DATA

ADDRESS ACCESS TIME (TAA) AT -40 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	125.NS	100.NS	90.0NS
5	175.NS	135.NS	115.NS
6	310.NS *	185.NS	145.NS
7	160.NS	125.NS	110.NS
8	260.NS *	155.NS	120.NS
9	185.NS	130.NS	110.NS
10	175.NS	130.NS	110.NS
11	195.NS	135.NS	110.NS
12	95.0NS	80.0NS	75.0NS
13	200.NS	140.NS	115.NS
14	225.NS	155.NS	130.NS
15	105.NS	90.0NS	85.0NS
16	215.NS	170.NS	135.NS
17	205.NS	145.NS	120.NS
18	175.NS	130.NS	115.NS
19	245.NS	160.NS	130.NS
20	165.NS	125.NS	105.NS
21	240.NS	175.NS	145.NS
22	265.NS *	165.NS	135.NS
23	190.NS	135.NS	115.NS
25	175.NS	135.NS	120.NS
26	185.NS	130.NS	110.NS
27	185.NS	140.NS	120.NS
28	230.NS	155.NS	125.NS
30	150.NS	120.NS	105.NS
31	170.NS	125.NS	110.NS
32	330.NS *	210.NS	170.NS
33	220.NS	165.NS	140.NS
34	240.NS	180.NS	155.NS
35	105.NS	90.0NS	85.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	200.NS	142.NS	120.NS
STD DEV	54.2NS	28.7NS	20.4NS
MEDIAN	193.NS	138.NS	117.NS
MIN VALUE	95.0NS	80.0NS	75.0NS
MAX VALUE	330.NS	210.NS	170.NS
NUMBER	28	28	28

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 168HR DATA

DATA SETUP TIME (TDS) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	16.0NS	10.0NS	10.0NS
5	18.0NS	14.0NS	12.0NS
6	16.0NS	10.0NS	8.00NS
7	6.00NS	6.00NS	8.00NS
8	10.0NS	8.00NS	10.0NS
9	8.00NS	8.00NS	8.00NS
10	16.0NS	14.0NS	10.0NS
11	10.0NS	8.00NS	8.00NS
12	12.0NS	8.00NS	8.00NS
13	14.0NS	10.0NS	10.0NS
14	16.0NS	12.0NS	10.0NS
15	8.00NS	8.00NS	8.00NS
16	12.0NS	12.0NS	12.0NS
17	16.0NS	12.0NS	12.0NS
18	18.0NS	14.0NS	14.0NS
19	12.0NS	12.0NS	12.0NS
20	10.0NS	8.00NS	8.00NS
21	16.0NS	14.0NS	12.0NS
22	10.0NS	8.00NS	8.00NS
23	8.00NS	8.00NS	10.0NS
25	22.0NS	18.0NS	16.0NS
26	10.0NS	8.00NS	10.0NS
27	12.0NS	8.00NS	10.0NS
28	14.0NS	10.0NS	10.0NS
30	12.0NS	10.0NS	10.0NS
31	8.00NS	8.00NS	8.00NS
32	22.0NS	14.0NS	12.0NS
33	16.0NS	14.0NS	10.0NS
34	10.0NS	10.0NS	10.0NS
35	12.0NS	8.00NS	8.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	12.7NS	10.3NS	10.0NS
STD DEV	4.01NS	2.81NS	2.00NS
MEDIAN	12.0NS	10.0NS	10.0NS
MIN VALUE	6.00NS	6.00NS	8.00NS
MAX VALUE	22.0NS	18.0NS	16.0NS
NUMBER	28	28	28

POST 168HR DATA

DATA HOLD TIME (TDH) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	14.0NS	16.0NS	18.0NS
5	18.0NS	18.0NS	22.0NS
6	22.0NS	24.0NS	26.0NS
7	18.0NS	20.0NS	22.0NS
8	20.0NS	22.0NS	22.0NS
9	18.0NS	20.0NS	22.0NS
10	14.0NS	18.0NS	20.0NS
11	18.0NS	18.0NS	22.0NS
12	16.0NS	18.0NS	20.0NS
13	18.0NS	18.0NS	20.0NS
14	18.0NS	18.0NS	22.0NS
15	18.0NS	20.0NS	22.0NS
16	20.0NS	22.0NS	26.0NS
17	18.0NS	18.0NS	24.0NS
18	18.0NS	20.0NS	24.0NS
19	20.0NS	24.0NS	28.0NS
20	18.0NS	18.0NS	22.0NS
21	20.0NS	22.0NS	26.0NS
22	18.0NS	20.0NS	26.0NS
23	18.0NS	20.0NS	24.0NS
25	16.0NS	18.0NS	22.0NS
26	18.0NS	18.0NS	20.0NS
27	18.0NS	20.0NS	26.0NS
28	20.0NS	20.0NS	22.0NS
30	14.0NS	18.0NS	20.0NS
31	18.0NS	20.0NS	22.0NS
32	22.0NS	26.0NS	28.0NS
33	18.0NS	18.0NS	22.0NS
34	14.0NS	18.0NS	20.0NS
35	14.0NS	18.0NS	22.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	17.9NS	19.8NS	22.9NS
STD DEV	2.10NS	2.16NS	2.42NS
MEDIAN	18.0NS	20.0NS	22.0NS
MIN VALUE	14.0NS	18.0NS	20.0NS
MAX VALUE	22.0NS	26.0NS	28.0NS
NUMBER	28	28	28

POST 168HR DATA

WRITE PULSE WIDTH (TWP) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	46.0NS	38.0NS	32.0NS
5	50.0NS	44.0NS	40.0NS
6	54.0NS	44.0NS	38.0NS
7	38.0NS	38.0NS	32.0NS
8	42.0NS	32.0NS	30.0NS
9	38.0NS	32.0NS	30.0NS
10	50.0NS	44.0NS	40.0NS
11	40.0NS	36.0NS	32.0NS
12	50.0NS	44.0NS	42.0NS
13	38.0NS	32.0NS	30.0NS
14	50.0NS	46.0NS	40.0NS
15	42.0NS	38.0NS	36.0NS
16	46.0NS	38.0NS	38.0NS
17	50.0NS	46.0NS	40.0NS
18	52.0NS	48.0NS	38.0NS
19	50.0NS	44.0NS	40.0NS
20	44.0NS	38.0NS	34.0NS
21	58.0NS	48.0NS	42.0NS
22	44.0NS	38.0NS	32.0NS
23	38.0NS	38.0NS	30.0NS
25	54.0NS	48.0NS	44.0NS
26	42.0NS	32.0NS	30.0NS
27	44.0NS	40.0NS	34.0NS
28	44.0NS	40.0NS	36.0NS
30	44.0NS	40.0NS	32.0NS
31	38.0NS	32.0NS	30.0NS
32	68.0NS	58.0NS	48.0NS
33	54.0NS	40.0NS	40.0NS
34	46.0NS	38.0NS	38.0NS
35	46.0NS	42.0NS	38.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	46.6NS	40.5NS	36.2NS
STD DEV	6.95NS	6.01NS	4.88NS
MEDIAN	45.0NS	40.0NS	37.0NS
MIN VALUE	38.0NS	32.0NS	30.0NS
MAX VALUE	68.0NS	58.0NS	48.0NS
NUMBER	28	28	28

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POST 168HR DATA

ADDRESS SETUP TIME (TAS) AT -40 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	22.0NS	16.0NS	16.0NS
5	38.0NS	26.0NS	22.0NS
6	112.NS *	58.0NS	36.0NS
7	58.0NS	30.0NS	24.0NS
8	104.NS *	56.0NS	30.0NS
9	82.0NS *	46.0NS	30.0NS
10	44.0NS	26.0NS	22.0NS
11	84.0NS *	44.0NS	28.0NS
12	14.0NS	14.0NS	14.0NS
13	72.0NS *	34.0NS	24.0NS
14	70.0NS	36.0NS	26.0NS
15	18.0NS	16.0NS	16.0NS
16	110.NS *	60.0NS	38.0NS
17	54.0NS	32.0NS	24.0NS
18	42.0NS	26.0NS	22.0NS
19	102.NS *	54.0NS	34.0NS
20	52.0NS	28.0NS	22.0NS
21	56.0NS	34.0NS	28.0NS
22	112.NS *	64.0NS	38.0NS
23	76.0NS *	38.0NS	28.0NS
25	38.0NS	28.0NS	22.0NS
26	70.0NS	32.0NS	24.0NS
27	58.0NS	30.0NS	26.0NS
28	86.0NS *	42.0NS	30.0NS
30	36.0NS	24.0NS	20.0NS
31	78.0NS *	38.0NS	28.0NS
32	106.NS *	56.0NS	34.0NS
33	52.0NS	30.0NS	24.0NS
34	108.NS *	76.0NS *	60.0NS
35	16.0NS	16.0NS	16.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	68.2NS	38.1NS	27.4NS
STD DEV	29.5NS	15.3NS	8.75NS
MEDIAN	70.0NS	34.0NS	26.0NS
MIN VALLE	14.0NS	14.0NS	14.0NS
MAX VALLE	112.NS	76.0NS	60.0NS
NUMBER	28	28	28

POST 168HR DATA

ADDRESS HOLD TIME (TAH) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	-4.00NS	-2.00NS	2.00NS
5	-6.00NS	-2.00NS	4.00NS
6	-4.00NS	2.00NS	6.00NS
7	-4.00NS	2.00NS	4.00NS
8	-4.00NS	2.00NS	4.00NS
9	-4.00NS	2.00NS	4.00NS
10	-6.00NS	-2.00NS	2.00NS
11	-4.00NS	0.00 S	4.00NS
12	-4.00NS	0.00 S	2.00NS
13	-6.00NS	-2.00NS	2.00NS
14	-6.00NS	-2.00NS	4.00NS
15	-4.00NS	0.00 S	4.00NS
16	-4.00NS	0.00 S	4.00NS
17	-6.00NS	0.00 S	4.00NS
18	-6.00NS	-2.00NS	2.00NS
19	-4.00NS	0.00 S	4.00NS
20	-4.00NS	2.00NS	4.00NS
21	-6.00NS	0.00 S	6.00NS
22	-4.00NS	0.00 S	4.00NS
23	-4.00NS	2.00NS	4.00NS
25	-6.00NS	-2.00NS	4.00NS
26	-4.00NS	0.00 S	4.00NS
27	-4.00NS	2.00NS	6.00NS
28	-4.00NS	0.00 S	4.00NS
30	-4.00NS	0.00 S	2.00NS
31	-4.00NS	2.00NS	4.00NS
32	-4.00NS	0.00 S	4.00NS
33	-6.00NS	-2.00NS	2.00NS
34	-4.00NS	-2.00NS	2.00NS
35	-4.00NS	0.00 S	2.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-4.57NS	71.4PS	3.64NS
STD DEV	904.PS	1.46NS	1.20NS
MEDIAN	-4.00NS	0.00 S	4.00NS
MIN VALLE	-6.00NS	-2.00NS	2.00NS
MAX VALLE	-4.00NS	2.00NS	6.00NS
NUMBER	28	28	28

POST 168HR DATA

CHIP ENABLE TO WRITE TIME (TWS) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	44.0NS	36.0NS	32.0NS
5	48.0NS	42.0NS	36.0NS
6	52.0NS	40.0NS	32.0NS
7	38.0NS	34.0NS	26.0NS
8	40.0NS	34.0NS	30.0NS
9	36.0NS	28.0NS	24.0NS
10	52.0NS	42.0NS	36.0NS
11	38.0NS	32.0NS	28.0NS
12	46.0NS	42.0NS	38.0NS
13	40.0NS	34.0NS	30.0NS
14	52.0NS	42.0NS	36.0NS
15	40.0NS	36.0NS	32.0NS
16	44.0NS	40.0NS	32.0NS
17	48.0NS	44.0NS	36.0NS
18	56.0NS	46.0NS	40.0NS
19	48.0NS	42.0NS	36.0NS
20	42.0NS	36.0NS	30.0NS
21	58.0NS	46.0NS	38.0NS
22	44.0NS	36.0NS	26.0NS
23	40.0NS	34.0NS	28.0NS
25	54.0NS	46.0NS	40.0NS
26	40.0NS	34.0NS	30.0NS
27	44.0NS	36.0NS	30.0NS
28	44.0NS	38.0NS	32.0NS
30	44.0NS	38.0NS	32.0NS
31	40.0NS	32.0NS	26.0NS
32	66.0NS	58.0NS	50.0NS
33	54.0NS	44.0NS	38.0NS
34	44.0NS	38.0NS	32.0NS
35	44.0NS	38.0NS	34.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	46.0NS	38.9NS	32.9NS
STD DEV	7.01NS	5.92NS	5.44NS
MEDIAN	44.0NS	38.0NS	32.0NS
MIN VALLE	36.0NS	28.0NS	24.0NS
MAX VALLE	66.0NS	58.0NS	50.0NS
NUMBER	28	28	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

READ CYCLE TIME (TRC) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	120.NS	100.NS	100.NS
5	140.NS	115.NS	105.NS
6	200.NS	140.NS	115.NS
7	120.NS	105.NS	100.NS
8	165.NS	125.NS	105.NS
9	125.NS	105.NS	100.NS
10	140.NS	115.NS	105.NS
11	145.NS	105.NS	100.NS
12	100.NS	100.NS	100.NS
13	155.NS	115.NS	100.NS
14	155.NS	125.NS	110.NS
15	100.NS	100.NS	100.NS
16	180.NS	130.NS	110.NS
17	160.NS	125.NS	105.NS
18	145.NS	115.NS	105.NS
19	165.NS	120.NS	110.NS
20	135.NS	110.NS	100.NS
21	190.NS	150.NS	125.NS
22	165.NS	125.NS	115.NS
23	135.NS	110.NS	100.NS
25	160.NS	125.NS	115.NS
26	130.NS	105.NS	100.NS
27	150.NS	120.NS	105.NS
28	165.NS	120.NS	105.NS
30	130.NS	105.NS	100.NS
31	125.NS	105.NS	100.NS
32	205.NS	165.NS	150.NS
33	155.NS	120.NS	105.NS
34	140.NS	110.NS	100.NS
35	100.NS	100.NS	100.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	148.NS	118.NS	107.NS
STD DEV	26.9NS	15.0NS	10.4NS
MEDIAN	148.NS	115.NS	105.NS
MIN VALUE	100.NS	100.NS	100.NS
MAX VALUE	205.NS	165.NS	150.NS
NUMBER	28	28	28

POST 168HR DATA

WRITE CYCLE TIME (TWC) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	80.0NS	80.0NS	80.0NS
5	98.0NS	80.0NS	80.0NS
6	175.NS	112.NS	84.0NS
7	106.NS	80.0NS	80.0NS
8	155.NS	98.0NS	80.0NS
9	129.NS	88.0NS	80.0NS
10	104.NS	80.0NS	80.0NS
11	133.NS	90.0NS	80.0NS
12	80.0NS	80.0NS	80.0NS
13	119.NS	80.0NS	80.0NS
14	129.NS	92.0NS	80.0NS
15	80.0NS	80.0NS	80.0NS
16	166.NS	108.NS	86.0NS
17	113.NS	88.0NS	80.0NS
18	104.NS	84.0NS	80.0NS
19	161.NS	108.NS	84.0NS
20	106.NS	80.0NS	80.0NS
21	123.NS	92.0NS	80.0NS
22	166.NS	112.NS	80.0NS
23	123.NS	86.0NS	80.0NS
25	102.NS	86.0NS	80.0NS
26	122.NS	80.0NS	80.0NS
27	112.NS	80.0NS	80.0NS
28	140.NS	92.0NS	80.0NS
30	90.0NS	80.0NS	80.0NS
31	126.NS	80.0NS	80.0NS
32	183.NS	123.NS	92.0NS
33	115.NS	80.0NS	80.0NS
34	163.NS	123.NS	108.NS
35	80.0NS	80.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	125.NS	90.8NS	81.9NS
STD DEV	28.7NS	13.5NS	5.64NS
MEDIAN	123.NS	86.0NS	80.0NS
MIN VALUE	80.0NS	80.0NS	80.0NS
MAX VALUE	183.NS	123.NS	108.NS
NUMBER	28	28	28

POST 168HR DATA

CHIP ENABLE TIME (TEN) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	24.0NS	20.0NS	18.0NS
5	26.0NS	22.0NS	20.0NS
6	30.0NS	24.0NS	22.0NS
7	22.0NS	20.0NS	18.0NS
8	26.0NS	22.0NS	18.0NS
9	22.0NS	20.0NS	18.0NS
10	26.0NS	22.0NS	20.0NS
11	22.0NS	18.0NS	16.0NS
12	22.0NS	18.0NS	16.0NS
13	26.0NS	22.0NS	20.0NS
14	30.0NS	26.0NS	22.0NS
15	22.0NS	18.0NS	16.0NS
16	26.0NS	22.0NS	20.0NS
17	30.0NS	24.0NS	22.0NS
18	26.0NS	22.0NS	20.0NS
19	26.0NS	22.0NS	20.0NS
20	24.0NS	20.0NS	18.0NS
21	36.0NS	30.0NS	26.0NS
22	28.0NS	24.0NS	22.0NS
23	24.0NS	22.0NS	18.0NS
25	28.0NS	24.0NS	22.0NS
26	24.0NS	20.0NS	18.0NS
27	28.0NS	24.0NS	20.0NS
28	28.0NS	24.0NS	20.0NS
30	24.0NS	16.0NS	18.0NS
31	24.0NS	20.0NS	18.0NS
32	34.0NS	28.0NS	24.0NS
33	28.0NS	24.0NS	22.0NS
34	24.0NS	22.0NS	18.0NS
35	22.0NS	20.0NS	18.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	26.1NS	22.1NS	19.6NS
STD DEV	3.54NS	3.00NS	2.39NS
MEDIAN	26.0NS	22.0NS	20.0NS
MIN VALLE	22.0NS	16.0NS	16.0NS
MAX VALLE	36.0NS	30.0NS	26.0NS
NUMBER	28	28	28

POST 168HR DATA

OUTPUT VOLTAGE LOW (VOL) AT -40 C

SERIAL NO.	
4	95.0MV
5	115.MV
6	130.MV
7	110.MV
8	115.MV
9	100.MV
10	105.MV
11	100.MV
12	95.0MV
13	115.MV
14	135.MV
15	105.MV
16	110.MV
17	125.MV
18	105.MV
19	110.MV
20	110.MV
21	155.MV
22	120.MV
23	105.MV
25	120.MV
26	105.MV
27	125.MV
28	120.MV
30	105.MV
31	100.MV
32	135.MV
33	115.MV
34	110.MV
35	100.MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	114.MV
STD DEV	13.2MV
MEDIAN	110.MV
MIN VALUE	95.0MV
MAX VALUE	155.MV
NUMBER	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

OUTPUT VOLTAGE HIGH (VOH1) AT -40 C

SERIAL NO.	
4	4.42 V
5	4.41 V
6	4.40 V
7	4.42 V
8	4.41 V
9	4.42 V
10	4.41 V
11	4.42 V
12	4.42 V
13	4.41 V
14	4.40 V
15	4.41 V
16	4.41 V
17	4.40 V
18	4.41 V
19	4.41 V
20	4.41 V
21	4.39 V
22	4.41 V
23	4.42 V
25	4.39 V
26	4.42 V
27	4.41 V
28	4.41 V
30	4.42 V
31	4.42 V
32	4.39 V
33	4.40 V
34	4.41 V
35	4.41 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.60 V
MEAN	4.41 V
STD DEV	9.58MV
MEDIAN	4.41 V
MIN VALUE	4.39 V
MAX VALUE	4.42 V
NUMBER	28

POST 168HR DATA

OUTPUT VOLTAGE HIGH (VOH2) AT -40 C

SERIAL NO.	
4	4.92 V
5	4.92 V
6	4.91 V
7	4.91 V
8	4.92 V
9	4.92 V
10	4.92 V
11	4.92 V
12	4.92 V
13	4.91 V
14	4.90 V
15	4.91 V
16	4.92 V
17	4.91 V
18	4.92 V
19	4.91 V
20	4.92 V
21	4.90 V
22	4.91 V
23	4.92 V
25	4.90 V
26	4.92 V
27	4.92 V
28	4.91 V
30	4.92 V
31	4.92 V
32	4.90 V
33	4.90 V
34	4.91 V
35	4.92 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.92 V
STD DEV	7.95MV
MEDIAN	4.92 V
MIN VALUE	4.90 V
MAX VALUE	4.92 V
NUMBER	28

POST 168HR DATA

AVERAGE INPUT LOW CURRENT (IIL) AT -40 C

SERIAL NO.	
4	769.PA
5	808.PA
6	808.PA
7	731.PA
8	577.PA
9	654.PA
10	577.PA
11	615.PA
12	615.PA
13	692.PA
14	769.PA
15	731.PA
16	538.PA
17	308.PA
18	731.PA
19	846.PA
20	269.PA
21	769.PA
22	808.PA
23	538.PA
25	1.05NA
26	231.PA
27	577.PA
28	577.PA
30	-38.5PA
31	615.PA
32	692.PA
33	769.PA
34	692.PA
35	500.PA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	616.PA
STD DEV	213.PA
MEDIAN	635.PA
MIN VALUE	-38.5PA
MAX VALUE	1.05NA
NUMBER	28

POST 168HR DATA

WORST CASE INPUT LOW CURRENT (IIL) AT -40 C

SERIAL NO.	
4	1.50NA
5	1.50NA
6	1.50NA
7	2.00NA
8	1.50NA
9	1.50NA
10	2.00NA
11	2.00NA
12	1.50NA
13	1.50NA
14	1.50NA
15	1.50NA
16	1.50NA
17	-5.00NA
18	1.50NA
19	1.50NA
20	-5.50NA
21	1.50NA
22	1.50NA
23	1.50NA
25	5.65NA
26	-3.50NA
27	1.50NA
28	1.50NA
30	-11.0NA
31	1.50NA
32	1.50NA
33	1.50NA
34	1.50NA
35	1.50NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	595.PA
STD DEV	3.09NA
MEDIAN	1.50NA
MIN VALUE	-11.0NA
MAX VALUE	5.65NA
NUMBER	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT -40 C

SERIAL NO.	
4	6.08NA
5	1.54NA
6	2.08NA
7	2.19NA
8	1.50NA
9	1.62NA
10	1.85NA
11	1.65NA
12	2.00NA
13	2.46NA
14	4.50NA
15	4.00NA
16	4.85NA
17	2.96NA
18	2.27NA
19	2.69NA
20	3.04NA
21	2.04NA
22	2.81NA
23	11.2NA
25	1.96NA
26	1.69NA
27	1.54NA
28	1.65NA
30	1.81NA
31	3.42NA
32	1.85NA
33	2.04NA
34	1.65NA
35	1.65NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	2.68NA
STD DEV	1.85NA
MEDIAN	2.04NA
MIN VALUE	1.50NA
MAX VALUE	11.2NA
NUMBER	28

POST 168HR DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT -40 C

SERIAL NO.	
4	35.5NA
5	2.50NA
6	4.50NA
7	8.00NA
8	2.50NA
9	2.50NA
10	4.00NA
11	3.00NA
12	5.50NA
13	11.0NA
14	31.0NA
15	15.5NA
16	23.0NA
17	9.50NA
18	6.00NA
19	12.5NA
20	15.5NA
21	6.00NA
22	8.00NA
23	124.NA
25	7.00NA
26	2.50NA
27	2.50NA
28	2.50NA
30	4.50NA
31	11.5NA
32	2.50NA
33	5.50NA
34	3.00NA
35	2.00NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	12.0NA
STD DEV	22.6NA
MEDIAN	5.75NA
MIN VALUE	2.00NA
MAX VALUE	124.NA
NUMBER	28

POST 168HR DATA

SUPPLY CURRENT (ICC1B0) AT -40 C

SERIAL NO.	
4	2.40UA
5	1.45UA
6	13.1UA
7	950.NA
8	21.3UA
9	1.81UA
10	1.36UA
11	850.NA
12	880.NA
13	885.NA
14	955.NA
15	880.NA
16	835.NA
17	1.00UA
18	955.NA
19	900.NA
20	920.NA
21	1.04UA
22	960.NA
23	2.92UA
25	1.12UA
26	930.NA
27	1.12UA
28	1.07UA
30	8.75UA
31	1.04UA
32	650.NA
33	3.97UA
34	144.UA
35	980.NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	7.70UA
STD DEV	26.5UA
MEDIAN	990.NA
MIN VALUE	650.NA
MAX VALUE	144.UA
NUMBER	28

POST 168HR DATA

SUPPLY CURRENT (ICC1B1) AT -40 C

SERIAL NO.	
4	62.2UA
5	640.NA
6	29.7UA
7	36.5UA
8	20.4UA
9	16.4UA
10	805.NA
11	240.NA
12	1.50UA
13	255.NA
14	400.NA
15	535.NA
16	215.NA
17	320.NA
18	390.NA
19	310.NA
20	360.NA
21	415.NA
22	420.NA
23	10.8UA
25	8.07UA
26	275.NA
27	565.NA
28	280.NA
30	8.52UA
31	13.4UA
32	700.NA
33	1.56MA *
34	144.UA
35	310.NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	66.3UA
STD DEV	289.UA
MEDIAN	550.NA
MIN VALUE	215.NA
MAX VALUE	1.56MA
NUMBER	28

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 168HR DATA

SUPPLY CURRENT (ICC280) AT -40 C

SERIAL NO.	
4	1.71UA
5	128.UA
6	12.6UA
7	370.NA
8	21.9UA
9	1.42UA
10	1.00UA
11	545.NA
12	1.03UA
13	3.09UA
14	395.NA
15	600.NA
16	440.NA
17	5.48UA
18	475.NA
19	365.NA
20	400.NA
21	355.NA
22	432.UA
23	1.24UA
25	590.NA
26	580.NA
27	915.NA
28	565.NA
30	520.NA
31	435.NA
32	10.2MA *
33	44.8UA
34	183.UA
35	555.NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	391.UA
STD DEV	1.90MA
MEDIAN	595.NA
MIN VALUE	355.NA
MAX VALUE	10.2MA
NUMBER	28

POST 168HR DATA

SUPPLY CURRENT (ICC2B1) AT -40 C

SERIAL NO.	
4	71.0UA
5	127.UA
6	32.0UA
7	42.2UA
8	21.3UA
9	17.4UA
10	700.NA
11	250.NA
12	325.NA
13	2.92UA
14	370.NA
15	400.NA
16	355.NA
17	5.39UA
18	275.NA
19	205.NA
20	300.NA
21	235.NA
22	432.UA
23	9.60UA
25	7.68UA
26	360.NA
27	765.NA
28	255.NA
30	600.NA
31	13.2UA
32	10.2MA *
33	1.60MA *
34	184.UA
35	360.NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	450.UA
STD DEV	1.91MA
MEDIAN	733.NA
MIN VALUE	205.NA
MAX VALUE	10.2MA
NUMBER	28

POST 168HR DATA

OUTPUT LEAKAGE CURRENT (IOL) AT -40 C

SERIAL NO.	
4	37.0NA
5	3.00NA
6	15.5NA
7	16.5NA
8	2.00NA
9	1.50NA
10	12.5NA
11	2.00NA
12	11.5NA
13	16.5NA
14	6.00NA
15	34.0NA
16	32.0NA
17	17.5NA
18	23.0NA
19	20.0NA
20	22.5NA
21	18.0NA
22	16.5NA
23	9.50NA
25	10.0NA
26	2.00NA
27	2.00NA
28	1.50NA
30	13.5NA
31	15.0NA
32	5.50NA
33	15.5NA
34	15.0NA
35	2.00NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	12.8NA
STD DEV	8.75NA
MEDIAN	14.3NA
MIN VALUE	1.50NA
MAX VALUE	34.0NA
NUMBER	28

POST 168HR DATA

ADDRESS ACCESS TIME (TAA) AT -55 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	125.NS	100.NS	90.0NS
5	185.NS	135.NS	115.NS
6	335.NS *	190.NS	145.NS
7	155.NS	120.NS	105.NS
8	275.NS *	155.NS	120.NS
9	175.NS	125.NS	105.NS
10	70.0NS	130.NS	110.NS
11	205.NS	135.NS	115.NS
12	95.0NS	80.0NS	75.0NS
13	215.NS	140.NS	115.NS
14	240.NS	160.NS	130.NS
15	110.NS	90.0NS	85.0NS
16	300.NS *	170.NS	135.NS
17	215.NS	145.NS	120.NS
18	180.NS	135.NS	115.NS
19	250.NS	160.NS	125.NS
20	175.NS	125.NS	105.NS
21	245.NS	175.NS	145.NS
22	270.NS *	160.NS	130.NS
23	190.NS	135.NS	115.NS
25	175.NS	135.NS	120.NS
26	190.NS	130.NS	110.NS
27	195.NS	140.NS	115.NS
28	240.NS	155.NS	125.NS
30	155.NS	120.NS	100.NS
31	160.NS	120.NS	100.NS
32	1.00KS *	215.NS	165.NS
33	220.NS	165.NS	135.NS
34	250.NS	185.NS	155.NS
35	105.NS	90.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	200.NS	142.NS	118.NS
STD DEV	61.8NS	29.9NS	20.5NS
MEDIAN	195.NS	138.NS	115.NS
MIN VALUE	70.0NS	80.0NS	75.0NS
MAX VALUE	335.NS	215.NS	165.NS
NUMBER	27	28	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

DATA SETUP TIME (TDS) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	14.0NS	10.0NS	10.0NS
5	18.0NS	14.0NS	10.0NS
6	18.0NS	12.0NS	10.0NS
7	6.00NS	6.00NS	8.00NS
8	10.0NS	10.0NS	10.0NS
9	8.00NS	6.00NS	8.00NS
10	16.0NS	12.0NS	10.0NS
11	10.0NS	8.00NS	8.00NS
12	12.0NS	8.00NS	8.00NS
13	12.0NS	10.0NS	10.0NS
14	16.0NS	12.0NS	10.0NS
15	8.00NS	6.00NS	6.00NS
16	12.0NS	10.0NS	12.0NS
17	18.0NS	12.0NS	10.0NS
18	20.0NS	14.0NS	12.0NS
19	12.0NS	12.0NS	12.0NS
20	10.0NS	8.00NS	8.00NS
21	18.0NS	12.0NS	12.0NS
22	10.0NS	8.00NS	8.00NS
23	8.00NS	8.00NS	8.00NS
25	24.0NS	16.0NS	16.0NS
26	10.0NS	8.00NS	10.0NS
27	12.0NS	10.0NS	10.0NS
28	12.0NS	10.0NS	12.0NS
30	12.0NS	10.0NS	10.0NS
31	8.00NS	8.00NS	8.00NS
32	22.0NS	16.0NS	12.0NS
33	16.0NS	12.0NS	10.0NS
34	10.0NS	10.0NS	10.0NS
35	10.0NS	8.00NS	8.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	12.9NS	10.1NS	9.86NS
STD DEV	4.52NS	2.64NS	1.99NS
MEDIAN	12.0NS	10.0NS	10.0NS
MIN VALUE	6.00NS	6.00NS	6.00NS
MAX VALUE	24.0NS	16.0NS	16.0NS
NUMBER	28	28	28

POST 168HR DATA

DATA HOLD TIME (TDH) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	14.0NS	18.0NS	18.0NS
5	18.0NS	20.0NS	22.0NS
6	20.0NS	22.0NS	28.0NS
7	18.0NS	18.0NS	22.0NS
8	18.0NS	20.0NS	22.0NS
9	18.0NS	20.0NS	22.0NS
10	16.0NS	18.0NS	20.0NS
11	18.0NS	18.0NS	20.0NS
12	14.0NS	18.0NS	18.0NS
13	16.0NS	18.0NS	20.0NS
14	18.0NS	18.0NS	20.0NS
15	18.0NS	18.0NS	22.0NS
16	18.0NS	22.0NS	24.0NS
17	16.0NS	18.0NS	20.0NS
18	18.0NS	18.0NS	20.0NS
19	18.0NS	22.0NS	26.0NS
20	18.0NS	18.0NS	22.0NS
21	20.0NS	22.0NS	26.0NS
22	18.0NS	20.0NS	22.0NS
23	18.0NS	20.0NS	22.0NS
25	16.0NS	18.0NS	20.0NS
26	18.0NS	18.0NS	20.0NS
27	18.0NS	20.0NS	26.0NS
28	18.0NS	20.0NS	22.0NS
30	18.0NS	18.0NS	20.0NS
31	18.0NS	20.0NS	22.0NS
32	20.0NS	24.0NS	28.0NS
33	16.0NS	18.0NS	20.0NS
34	14.0NS	18.0NS	20.0NS
35	14.0NS	18.0NS	20.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	17.4NS	19.3NS	21.9NS
STD DEV	1.59NS	1.71NS	2.59NS
MEDIAN	18.0NS	18.0NS	22.0NS
MIN VALUE	14.0NS	18.0NS	18.0NS
MAX VALUE	20.0NS	24.0NS	28.0NS
NUMBER	28	28	28

POST 168HR DATA

WRITE PULSE WIDTH (TWP) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	44.0NS	38.0NS	32.0NS
5	50.0NS	42.0NS	38.0NS
6	54.0NS	44.0NS	38.0NS
7	38.0NS	38.0NS	32.0NS
8	42.0NS	38.0NS	30.0NS
9	38.0NS	32.0NS	30.0NS
10	50.0NS	46.0NS	40.0NS
11	40.0NS	32.0NS	32.0NS
12	50.0NS	44.0NS	42.0NS
13	42.0NS	32.0NS	30.0NS
14	50.0NS	46.0NS	40.0NS
15	42.0NS	38.0NS	36.0NS
16	46.0NS	38.0NS	38.0NS
17	50.0NS	46.0NS	40.0NS
18	56.0NS	48.0NS	38.0NS
19	48.0NS	44.0NS	40.0NS
20	44.0NS	38.0NS	34.0NS
21	58.0NS	48.0NS	42.0NS
22	44.0NS	38.0NS	32.0NS
23	38.0NS	32.0NS	30.0NS
25	58.0NS	48.0NS	44.0NS
26	42.0NS	32.0NS	30.0NS
27	44.0NS	38.0NS	34.0NS
28	46.0NS	40.0NS	36.0NS
30	44.0NS	40.0NS	32.0NS
31	38.0NS	32.0NS	30.0NS
32	62.0NS	60.0NS	52.0NS
33	54.0NS	44.0NS	40.0NS
34	44.0NS	38.0NS	32.0NS
35	46.0NS	42.0NS	38.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	46.7NS	40.6NS	36.1NS
STD DEV	6.55NS	6.48NS	5.32NS
MEDIAN	45.0NS	39.0NS	36.0NS
MIN VALUE	38.0NS	32.0NS	30.0NS
MAX VALUE	62.0NS	60.0NS	52.0NS
NUMBER	28	28	28

POST 168HR DATA

ADDRESS SETUP TIME (TAS) AT -55 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	24.0NS	18.0NS	16.0NS
5	46.0NS	28.0NS	22.0NS
6	128.NS *	68.0NS	38.0NS
7	62.0NS	30.0NS	24.0NS
8	116.NS *	64.0NS	34.0NS
9	84.0NS *	46.0NS	28.0NS
10	56.0NS	30.0NS	22.0NS
11	96.0NS *	54.0NS	30.0NS
12	14.0NS	14.0NS	14.0NS
13	88.0NS *	40.0NS	26.0NS
14	84.0NS *	40.0NS	28.0NS
15	20.0NS	16.0NS	16.0NS
16	124.NS *	66.0NS	40.0NS
17	70.0NS	36.0NS	26.0NS
18	50.0NS	30.0NS	24.0NS
19	108.NS *	58.0NS	36.0NS
20	62.0NS	32.0NS	24.0NS
21	66.0NS	38.0NS	30.0NS
22	114.NS *	64.0NS	38.0NS
23	80.0NS *	42.0NS	28.0NS
25	44.0NS	30.0NS	24.0NS
26	80.0NS *	36.0NS	26.0NS
27	70.0NS	34.0NS	26.0NS
28	98.0NS *	52.0NS	32.0NS
30	40.0NS	26.0NS	20.0NS
31	80.0NS *	38.0NS	26.0NS
32	114.NS *	64.0NS	36.0NS
33	70.0NS	36.0NS	26.0NS
34	120.NS *	82.0NS *	64.0NS
35	16.0NS	16.0NS	16.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	76.9NS	42.2NS	28.6NS
STD DEV	31.7NS	17.0NS	9.43NS
MEDIAN	80.0NS	38.0NS	26.0NS
MIN VALLE	14.0NS	14.0NS	14.0NS
MAX VALLE	128.NS	82.0NS	64.0NS
NUMBER	28	28	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

ADDRESS HOLD TIME (TAH) AT -55 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	-4.00NS	-2.00NS	2.00NS
5	-6.00NS	-2.00NS	4.00NS
6	-4.00NS	0.00 S	4.00NS
7	-4.00NS	0.00 S	4.00NS
8	-4.00NS	0.00 S	4.00NS
9	-4.00NS	2.00NS	4.00NS
10	-6.00NS	-2.00NS	2.00NS
11	-4.00NS	0.00 S	4.00NS
12	-4.00NS	-2.00NS	2.00NS
13	-6.00NS	-2.00NS	2.00NS
14	-6.00NS	-2.00NS	2.00NS
15	-4.00NS	0.00 S	2.00NS
16	-4.00NS	0.00 S	4.00NS
17	-6.00NS	-2.00NS	2.00NS
18	-6.00NS	-4.00NS	2.00NS
19	-6.00NS	-2.00NS	4.00NS
20	-4.00NS	0.00 S	4.00NS
21	-6.00NS	0.00 S	4.00NS
22	-4.00NS	0.00 S	4.00NS
23	-4.00NS	2.00NS	4.00NS
25	-6.00NS	-2.00NS	2.00NS
26	-4.00NS	0.00 S	4.00NS
27	-4.00NS	2.00NS	4.00NS
28	-4.00NS	0.00 S	4.00NS
30	-4.00NS	0.00 S	2.00NS
31	-4.00NS	2.00NS	4.00NS
32	-4.00NS	0.00 S	4.00NS
33	-6.00NS	-2.00NS	2.00NS
34	-4.00NS	-2.00NS	2.00NS
35	-4.00NS	0.00 S	2.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-4.64NS	-500.PS	3.14NS
STD DEV	934.PS	1.48NS	990.PS
MEDIAN	-4.00NS	0.00 S	4.00NS
MIN VALUE	-6.00NS	-4.00NS	2.00NS
MAX VALUE	-4.00NS	2.00NS	4.00NS
NUMBER	28	28	28

POST 168HR DATA

CHIP ENABLE TO WRITE TIME (TWS) AT -55 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	42.0NS	36.0NS	30.0NS
5	52.0NS	40.0NS	34.0NS
6	52.0NS	42.0NS	32.0NS
7	38.0NS	34.0NS	26.0NS
8	42.0NS	34.0NS	30.0NS
9	36.0NS	30.0NS	26.0NS
10	54.0NS	42.0NS	36.0NS
11	38.0NS	32.0NS	28.0NS
12	50.0NS	42.0NS	38.0NS
13	40.0NS	34.0NS	30.0NS
14	54.0NS	44.0NS	36.0NS
15	40.0NS	36.0NS	32.0NS
16	44.0NS	38.0NS	32.0NS
17	54.0NS	44.0NS	36.0NS
18	56.0NS	44.0NS	40.0NS
19	48.0NS	42.0NS	36.0NS
20	44.0NS	36.0NS	30.0NS
21	58.0NS	48.0NS	38.0NS
22	42.0NS	36.0NS	30.0NS
23	40.0NS	34.0NS	28.0NS
25	54.0NS	46.0NS	40.0NS
26	40.0NS	34.0NS	28.0NS
27	44.0NS	36.0NS	30.0NS
28	44.0NS	38.0NS	32.0NS
30	44.0NS	38.0NS	32.0NS
31	38.0NS	32.0NS	26.0NS
32	72.0NS *	58.0NS	50.0NS
33	54.0NS	44.0NS	38.0NS
34	44.0NS	36.0NS	32.0NS
35	44.0NS	38.0NS	34.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	46.7NS	39.0NS	33.1NS
STD DEV	7.97NS	5.92NS	5.25NS
MEDIAN	44.0NS	38.0NS	32.0NS
MIN VALUE	36.0NS	30.0NS	26.0NS
MAX VALUE	72.0NS	58.0NS	50.0NS
NUMBER	28	28	28

POST 168HR DATA

READ CYCLE TIME (TRC) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	120.NS	100.NS	100.NS
5	150.NS	115.NS	105.NS
6	215.NS	145.NS	120.NS
7	125.NS	105.NS	100.NS
8	165.NS	125.NS	105.NS
9	135.NS	105.NS	100.NS
10	145.NS	115.NS	100.NS
11	150.NS	110.NS	100.NS
12	100.NS	100.NS	100.NS
13	165.NS	120.NS	100.NS
14	150.NS	125.NS	110.NS
15	100.NS	100.NS	100.NS
16	195.NS	130.NS	115.NS
17	165.NS	125.NS	110.NS
18	150.NS	115.NS	100.NS
19	165.NS	125.NS	110.NS
20	140.NS	110.NS	100.NS
21	195.NS	145.NS	125.NS
22	175.NS	130.NS	110.NS
23	145.NS	115.NS	100.NS
25	155.NS	125.NS	115.NS
26	145.NS	110.NS	100.NS
27	155.NS	120.NS	105.NS
28	175.NS	125.NS	110.NS
30	135.NS	105.NS	100.NS
31	135.NS	105.NS	100.NS
32	215.NS	175.NS	150.NS
33	165.NS	125.NS	105.NS
34	140.NS	110.NS	100.NS
35	100.NS	100.NS	100.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	154.NS	119.NS	107.NS
STD DEV	29.1NS	16.1NS	10.8NS
MEDIAN	150.NS	117.NS	100.NS
MIN VALLE	100.NS	100.NS	100.NS
MAX VALLE	215.NS	175.NS	150.NS
NUMBER	28	28	28

POST 168HR DATA

WRITE CYCLE TIME (TWC) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	80.0NS	80.0NS	80.0NS
5	106.NS	80.0NS	80.0NS
6	191.NS	122.NS	86.0NS
7	110.NS	80.0NS	80.0NS
8	167.NS	112.NS	80.0NS
9	132.NS	88.0NS	80.0NS
10	115.NS	86.0NS	80.0NS
11	145.NS	96.0NS	80.0NS
12	80.0NS	80.0NS	80.0NS
13	140.NS	82.0NS	80.0NS
14	144.NS	96.0NS	80.0NS
15	80.0NS	80.0NS	80.0NS
16	179.NS	114.NS	88.0NS
17	129.NS	92.0NS	80.0NS
18	115.NS	88.0NS	80.0NS
19	166.NS	112.NS	86.0NS
20	116.NS	80.0NS	80.0NS
21	133.NS	96.0NS	82.0NS
22	167.NS	112.NS	80.0NS
23	128.NS	84.0NS	80.0NS
25	112.NS	88.0NS	80.0NS
26	132.NS	80.0NS	80.0NS
27	123.NS	82.0NS	80.0NS
28	153.NS	102.NS	80.0NS
30	94.0NS	80.0NS	80.0NS
31	128.NS	80.0NS	80.0NS
32	186.NS	133.NS	98.0NS
33	133.NS	90.0NS	80.0NS
34	174.NS	129.NS	106.NS
35	80.0NS	80.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	134.NS	94.4NS	82.4NS
STD DEV	30.5NS	15.9NS	5.93NS
MEDIAN	132.NS	88.0NS	80.0NS
MIN VALUE	80.0NS	80.0NS	80.0NS
MAX VALUE	191.NS	133.NS	106.NS
NUMBER	28	28	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

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POST 168HR DATA

CHIP ENABLE TIME (TEN) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	22.0NS	20.0NS	18.0NS
5	26.0NS	22.0NS	20.0NS
6	30.0NS	24.0NS	22.0NS
7	22.0NS	18.0NS	16.0NS
8	26.0NS	22.0NS	18.0NS
9	22.0NS	18.0NS	16.0NS
10	26.0NS	22.0NS	20.0NS
11	22.0NS	18.0NS	16.0NS
12	22.0NS	18.0NS	16.0NS
13	26.0NS	22.0NS	20.0NS
14	30.0NS	26.0NS	22.0NS
15	22.0NS	18.0NS	16.0NS
16	24.0NS	22.0NS	18.0NS
17	30.0NS	24.0NS	22.0NS
18	26.0NS	22.0NS	20.0NS
19	24.0NS	20.0NS	18.0NS
20	24.0NS	20.0NS	18.0NS
21	34.0NS	30.0NS	26.0NS
22	28.0NS	24.0NS	22.0NS
23	24.0NS	20.0NS	18.0NS
25	28.0NS	24.0NS	22.0NS
26	24.0NS	20.0NS	18.0NS
27	26.0NS	22.0NS	20.0NS
28	26.0NS	22.0NS	20.0NS
30	24.0NS	20.0NS	18.0NS
31	22.0NS	20.0NS	18.0NS
32	34.0NS	28.0NS	24.0NS
33	28.0NS	24.0NS	20.0NS
34	24.0NS	20.0NS	18.0NS
35	22.0NS	20.0NS	18.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	25.7NS	21.7NS	19.3NS
STD DEV	3.41NS	2.96NS	2.52NS
MEDIAN	25.0NS	22.0NS	18.0NS
MIN VALUE	22.0NS	18.0NS	16.0NS
MAX VALUE	34.0NS	30.0NS	26.0NS
NUMBER	28	28	28

POST 168HR DATA

OUTPUT VOLTAGE LOW (VOL) AT -55 C

SERIAL NO.	
4	90.0MV
5	110.MV
6	130.MV
7	110.MV
8	115.MV
9	100.MV
10	105.MV
11	100.MV
12	90.0MV
13	115.MV
14	130.MV
15	105.MV
16	110.MV
17	120.MV
18	105.MV
19	110.MV
20	105.MV
21	150.MV
22	120.MV
23	105.MV
25	120.MV
26	100.MV
27	120.MV
28	115.MV
30	100.MV
31	100.MV
32	135.MV
33	10.0MV
34	105.MV
35	100.MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	108.MV
STD DEV	22.8MV
MEDIAN	108.MV
MIN VALUE	10.0MV
MAX VALUE	150.MV
NUMBER	28

POST 168HR DATA

OUTPUT VOLTAGE HIGH (VOH1) AT -55 C

SERIAL NO.	
4	4.42 V
5	4.41 V
6	4.41 V
7	4.42 V
8	4.42 V
9	4.43 V
10	4.42 V
11	4.42 V
12	4.42 V
13	4.41 V
14	4.40 V
15	4.42 V
16	4.42 V
17	4.40 V
18	4.41 V
19	4.42 V
20	4.42 V
21	4.39 V
22	4.42 V
23	4.43 V
25	4.40 V
26	4.43 V
27	4.41 V
28	4.41 V
30	4.42 V
31	4.43 V
32	4.39 V
33	15.0MV *
34	4.42 V
35	4.42 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.60 V
MEAN	4.26 V
STD DEV	817.MV
MEDIAN	4.42 V
MIN VALUE	15.0MV
MAX VALUE	4.43 V
NUMBER	28

POST 168HR DATA

OUTPUT VOLTAGE HIGH (VOH2) AT -55 C

SERIAL NO.	
4	4.93 V
5	4.92 V
6	4.92 V
7	4.91 V
8	4.92 V
9	4.93 V
10	4.93 V
11	4.93 V
12	4.93 V
13	4.92 V
14	4.91 V
15	4.92 V
16	4.92 V
17	4.92 V
18	4.92 V
19	4.92 V
20	4.93 V
21	4.90 V
22	4.92 V
23	4.93 V
25	4.91 V
26	4.93 V
27	4.92 V
28	4.92 V
30	4.92 V
31	4.93 V
32	4.91 V
33	15.0MV *
34	4.92 V
35	4.92 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.75 V
STD DEV	911.MV
MEDIAN	4.92 V
MIN VALUE	15.0MV
MAX VALUE	4.93 V
NUMBER	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

AVERAGE INPUT LOW CURRENT (IIL) AT -55 C

SERIAL NO.	
4	654.PA
5	1.00NA
6	885.PA
7	500.PA
8	846.PA
9	808.PA
10	-38.5PA
11	-2.23NA
12	-346.PA
13	-1.27NA
14	-1.35NA
15	-1.42NA
16	-1.23NA
17	-846.PA
18	-1.31NA
19	-769.PA
20	-1.12NA
21	-769.PA
22	-1.27NA
23	-346.PA
25	115.PA
26	-1.04NA
27	-1.35NA
28	192.PA
30	769.PA
31	-192.PA
32	462.PA
33	731.PA
34	615.PA
35	769.PA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-364.PA
STD DEV	899.PA
MEDIAN	-346.PA
MIN VALUE	-2.23NA
MAX VALUE	885.PA
NUMBER	28

POST 168HR DATA

WORST CASE INPUT LOW CURRENT (IIL) AT -55 C

SERIAL NO.	
4	1.00NA
5	3.00NA
6	3.00NA
7	1.00NA
8	1.50NA
9	1.50NA
10	-10.0NA
11	-37.0NA
12	-13.5NA
13	-25.0NA
14	-26.0NA
15	-25.5NA
16	-22.5NA
17	-19.5NA
18	-25.0NA
19	-18.5NA
20	-21.5NA
21	-18.5NA
22	-24.5NA
23	-12.0NA
25	-7.50NA
26	-14.5NA
27	-21.0NA
28	-2.50NA
30	1.50NA
31	-11.5NA
32	-3.00NA
33	2.50NA
34	-1.50NA
35	1.50NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-12.4NA
STD DEV	11.3NA
MEDIAN	-12.8NA
MIN VALUE	-37.0NA
MAX VALUE	3.00NA
NUMBER	28

POST 168HR DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT -55 C

SERIAL NO.	
4	2.23NA
5	8.58NA
6	11.5NA
7	4.08NA
8	9.35NA
9	7.23NA
10	7.27NA
11	5.38NA
12	5.08NA
13	7.15NA
14	2.23NA
15	2.31NA
16	2.15NA
17	2.38NA
18	2.35NA
19	1.96NA
20	2.19NA
21	1.92NA
22	2.58NA
23	7.69NA
25	2.42NA
26	2.92NA
27	2.77NA
28	2.50NA
30	2.77NA
31	2.35NA
32	2.08NA
33	1.81NA
34	2.50NA
35	2.46NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	3.91NA
STD DEV	2.57NA
MEDIAN	2.50NA
MIN VALLE	1.81NA
MAX VALLE	11.5NA
NUMBER	28

POST 168HR DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT -55 C

SERIAL NO.	
4	3.00NA
5	31.5NA
6	57.0NA
7	22.0NA
8	31.0NA
9	30.5NA
10	53.0NA
11	37.5NA
12	31.5NA
13	35.0NA
14	4.00NA
15	5.50NA
16	5.00NA
17	6.00NA
18	5.50NA
19	4.00NA
20	5.00NA
21	4.00NA
22	5.00NA
23	75.0NA
25	3.50NA
26	14.0NA
27	10.0NA
28	6.50NA
30	11.5NA
31	4.00NA
32	3.00NA
33	2.50NA
34	5.00NA
35	8.00NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	17.3NA
STD DEV	19.0NA
MEDIAN	6.25NA
MIN VALUE	2.50NA
MAX VALUE	75.0NA
NUMBER	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

SUPPLY CURRENT (ICC180) AT -55 C

SERIAL NO.	
4	1.41UA
5	1.66UA
6	11.2UA
7	975.NA
8	19.6UA
9	1.91UA
10	1.33UA
11	1.20UA
12	1.20UA
13	940.NA
14	955.NA
15	915.NA
16	840.NA
17	880.NA
18	1.02UA
19	925.NA
20	665.NA
21	1.28UA
22	1.35UA
23	3.01UA
25	1.20UA
26	1.07UA
27	1.24UA
28	1.03UA
30	10.2UA
31	1.27UA
32	850.NA
33	4.06UA
34	145.UA
35	1.36UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	7.74UA
STD DEV	26.6UA
MEDIAN	1.20UA
MIN VALUE	665.NA
MAX VALUE	145.UA
NUMBER	28

POST 168HR DATA

SUPPLY CURRENT (ICC1B1) AT -55 C

SERIAL NO.	
4	60.8UA
5	720.NA
6	29.2UA
7	36.0UA
8	18.7UA
9	16.0UA
10	740.NA
11	375.NA
12	1.20UA
13	390.NA
14	445.NA
15	395.NA
16	305.NA
17	310.NA
18	390.NA
19	395.NA
20	235.NA
21	380.NA
22	635.NA
23	10.7UA
25	6.91UA
26	360.NA
27	405.NA
28	400.NA
30	8.75UA
31	12.2UA
32	800.NA
33	1.58MA *
34	144.UA
35	410.NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	66.8UA
STD DEV	292.UA
MEDIAN	540.NA
MIN VALUE	235.NA
MAX VALUE	1.58MA
NUMBER	28

POST 168HR DATA

SUPPLY CURRENT (ICC280) AT -55 C

SERIAL NO.	
4	1.06UA
5	127.UA
6	11.0UA
7	405.NA
8	20.7UA
9	1.26UA
10	715.NA
11	400.NA
12	885.NA
13	2.84UA
14	430.NA
15	555.NA
16	480.NA
17	5.15UA
18	300.NA
19	310.NA
20	420.NA
21	510.NA
22	432.UA
23	1.09UA
25	685.NA
26	555.NA
27	955.NA
28	690.NA
30	575.NA
31	520.NA
32	10.2MA *
33	44.7UA
34	183.UA
35	600.NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	391.UA
STD DEV	1.90MA
MEDIAN	688.NA
MIN VALUE	300.NA
MAX VALUE	10.2MA
NUMBER	28

POST 168HR DATA

SUPPLY CURRENT (ICC281) AT -55 C

SERIAL NO.	
4	68.8UA
5	127.UA
6	30.4UA
7	39.4UA
8	19.6UA
9	18.3UA
10	600.NA
11	155.NA
12	360.NA
13	2.57UA
14	235.NA
15	390.NA
16	400.NA
17	4.95UA
18	335.NA
19	240.NA
20	295.NA
21	315.NA
22	432.UA
23	9.55UA
25	7.08UA
26	240.NA
27	745.NA
28	265.NA
30	385.NA
31	11.8UA
32	10.2MA *
33	1.61MA *
34	183.UA
35	300.NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	450.UA
STD DEV	1.91MA
MEDIAN	673.NA
MIN VALUE	155.NA
MAX VALUE	10.2MA
NUMBER	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

OUTPUT LEAKAGE CURRENT (IOL) AT -55 C

SERIAL NO.	
4	17.5NA
5	29.5NA
6	47.5NA
7	22.0NA
8	37.0NA
9	32.0NA
10	36.0NA
11	53.5NA
12	47.5NA
13	65.5NA
14	11.5NA
15	6.50NA
16	3.00NA
17	9.50NA
18	10.5NA
19	5.50NA
20	3.00NA
21	3.00NA
22	5.00NA
23	4.50NA
25	5.00NA
26	32.5NA
27	28.5NA
28	25.5NA
30	23.0NA
31	4.50NA
32	3.50NA
33	3.00NA
34	15.0NA
35	21.5NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	20.2NA
STD DEV	17.6NA
MEDIAN	13.3NA
MIN VALUE	3.00NA
MAX VALUE	65.5NA
NUMBER	28

POST 168HR DATA

ADDRESS ACCESS TIME (TAA) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	140.NS	125.NS	110.NS
5	160.NS	135.NS	125.NS
6	190.NS	155.NS	135.NS
7	165.NS	145.NS	130.NS
8	170.NS	135.NS	120.NS
9	160.NS	130.NS	120.NS
10	165.NS	135.NS	125.NS
11	155.NS	125.NS	115.NS
12	105.NS	100.NS	95.0NS
13	160.NS	135.NS	120.NS
14	175.NS	150.NS	135.NS
15	115.NS	100.NS	95.0NS
16	215.NS	170.NS	150.NS
17	170.NS	140.NS	125.NS
18	160.NS	135.NS	120.NS
19	195.NS	155.NS	140.NS
20	150.NS	125.NS	115.NS
21	225.NS	185.NS	165.NS
22	180.NS	150.NS	135.NS
23	160.NS	135.NS	125.NS
25	185.NS	160.NS	145.NS
26	150.NS	125.NS	115.NS
27	165.NS	140.NS	125.NS
28	175.NS	145.NS	130.NS
30	155.NS	130.NS	120.NS
31	150.NS	125.NS	120.NS
32	235.NS	195.NS	1.00KS *
33	220.NS	190.NS	170.NS
34	225.NS	185.NS	170.NS
35	115.NS	105.NS	100.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	171.NS	143.NS	128.NS
STD DEV	31.9NS	24.6NS	19.1NS
MEDIAN	165.NS	138.NS	125.NS
MIN VALUE	105.NS	100.NS	95.0NS
MAX VALUE	235.NS	195.NS	170.NS
NUMBER	28	28	27

POST 168HR DATA

DATA SETUP TIME (TDS) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	20.0NS	16.0NS	16.0NS
5	20.0NS	16.0NS	14.0NS
6	14.0NS	16.0NS	16.0NS
7	10.0NS	12.0NS	16.0NS
8	14.0NS	12.0NS	14.0NS
9	10.0NS	12.0NS	14.0NS
10	20.0NS	16.0NS	16.0NS
11	12.0NS	12.0NS	14.0NS
12	14.0NS	12.0NS	10.0NS
13	18.0NS	14.0NS	16.0NS
14	20.0NS	16.0NS	16.0NS
15	10.0NS	10.0NS	10.0NS
16	16.0NS	16.0NS	22.0NS
17	20.0NS	16.0NS	16.0NS
18	22.0NS	18.0NS	16.0NS
19	16.0NS	16.0NS	22.0NS
20	14.0NS	12.0NS	14.0NS
21	20.0NS	20.0NS	20.0NS
22	14.0NS	12.0NS	14.0NS
23	12.0NS	12.0NS	16.0NS
25	28.0NS	22.0NS	22.0NS
26	14.0NS	12.0NS	14.0NS
27	16.0NS	14.0NS	14.0NS
28	18.0NS	16.0NS	16.0NS
30	16.0NS	16.0NS	16.0NS
31	12.0NS	12.0NS	14.0NS
32	24.0NS	20.0NS	20.0NS
33	20.0NS	16.0NS	16.0NS
34	16.0NS	16.0NS	16.0NS
35	14.0NS	12.0NS	10.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	16.2NS	14.6NS	15.7NS
STD DEV	4.29NS	2.93NS	3.15NS
MEDIAN	16.0NS	15.0NS	16.0NS
MIN VALUE	10.0NS	10.0NS	10.0NS
MAX VALUE	28.0NS	22.0NS	22.0NS
NUMBER	28	28	28

POST 168HR DATA

DATA HOLD TIME (TDH) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	14.0NS	18.0NS	20.0NS
5	18.0NS	20.0NS	22.0NS
6	20.0NS	26.0NS	28.0NS
7	20.0NS	22.0NS	26.0NS
8	20.0NS	22.0NS	26.0NS
9	20.0NS	22.0NS	26.0NS
10	16.0NS	18.0NS	22.0NS
11	18.0NS	20.0NS	24.0NS
12	14.0NS	18.0NS	20.0NS
13	16.0NS	20.0NS	22.0NS
14	18.0NS	20.0NS	22.0NS
15	18.0NS	20.0NS	22.0NS
16	20.0NS	24.0NS	28.0NS
17	18.0NS	20.0NS	24.0NS
18	18.0NS	20.0NS	22.0NS
19	20.0NS	24.0NS	28.0NS
20	18.0NS	20.0NS	24.0NS
21	20.0NS	24.0NS	28.0NS
22	20.0NS	22.0NS	26.0NS
23	20.0NS	22.0NS	26.0NS
25	18.0NS	20.0NS	24.0NS
26	18.0NS	20.0NS	22.0NS
27	20.0NS	22.0NS	26.0NS
28	18.0NS	22.0NS	26.0NS
30	16.0NS	18.0NS	22.0NS
31	18.0NS	22.0NS	26.0NS
32	22.0NS	26.0NS	28.0NS
33	16.0NS	20.0NS	22.0NS
34	16.0NS	20.0NS	22.0NS
35	16.0NS	18.0NS	20.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	18.3NS	21.1NS	24.4NS
STD DEV	1.83NS	2.17NS	2.51NS
MEDIAN	18.0NS	20.0NS	24.0NS
MIN VALUE	14.0NS	18.0NS	20.0NS
MAX VALUE	22.0NS	26.0NS	28.0NS
NUMBER	28	28	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

WRITE PULSE WIDTH (TWP) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	56.0NS	52.0NS	46.0NS
5	60.0NS	54.0NS	48.0NS
6	58.0NS	50.0NS	46.0NS
7	48.0NS	44.0NS	40.0NS
8	46.0NS	40.0NS	38.0NS
9	46.0NS	40.0NS	38.0NS
10	56.0NS	52.0NS	46.0NS
11	46.0NS	40.0NS	38.0NS
12	54.0NS	46.0NS	46.0NS
13	46.0NS	40.0NS	38.0NS
14	54.0NS	46.0NS	46.0NS
15	46.0NS	40.0NS	38.0NS
16	52.0NS	46.0NS	44.0NS
17	54.0NS	46.0NS	46.0NS
18	62.0NS	54.0NS	48.0NS
19	54.0NS	48.0NS	46.0NS
20	46.0NS	40.0NS	38.0NS
21	64.0NS	56.0NS	54.0NS
22	48.0NS	46.0NS	40.0NS
23	48.0NS	44.0NS	40.0NS
25	66.0NS	60.0NS	54.0NS
26	46.0NS	40.0NS	38.0NS
27	48.0NS	46.0NS	38.0NS
28	50.0NS	46.0NS	40.0NS
30	54.0NS	48.0NS	46.0NS
31	46.0NS	40.0NS	38.0NS
32	68.0NS	56.0NS	1.00KS *
33	60.0NS	54.0NS	48.0NS
34	58.0NS	52.0NS	48.0NS
35	52.0NS	46.0NS	42.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	52.7NS	46.6NS	43.0NS
STD DEV	6.57NS	5.68NS	4.88NS
MEDIAN	52.0NS	46.0NS	42.0NS
MIN VALUE	46.0NS	40.0NS	38.0NS
MAX VALUE	68.0NS	60.0NS	54.0NS
NUMBER	28	28	27

POST 168HR DATA

ADDRESS SETUP TIME (TAS) AT 85 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	20.0NS	20.0NS	20.0NS
5	28.0NS	26.0NS	26.0NS
6	38.0NS	28.0NS	26.0NS
7	30.0NS	24.0NS	26.0NS
8	34.0NS	24.0NS	24.0NS
9	28.0NS	24.0NS	24.0NS
10	26.0NS	24.0NS	24.0NS
11	30.0NS	24.0NS	24.0NS
12	18.0NS	18.0NS	18.0NS
13	28.0NS	24.0NS	24.0NS
14	28.0NS	26.0NS	26.0NS
15	20.0NS	18.0NS	20.0NS
16	50.0NS	36.0NS	32.0NS
17	26.0NS	24.0NS	24.0NS
18	28.0NS	26.0NS	26.0NS
19	42.0NS	32.0NS	28.0NS
20	26.0NS	24.0NS	24.0NS
21	32.0NS	30.0NS	30.0NS
22	36.0NS	28.0NS	26.0NS
23	28.0NS	24.0NS	24.0NS
25	28.0NS	26.0NS	28.0NS
26	26.0NS	22.0NS	22.0NS
27	26.0NS	24.0NS	24.0NS
28	30.0NS	24.0NS	24.0NS
30	24.0NS	24.0NS	24.0NS
31	26.0NS	22.0NS	24.0NS
32	38.0NS	30.0NS	30.0NS
33	28.0NS	24.0NS	26.0NS
34	82.0NS *	76.0NS *	74.0NS *
35	20.0NS	20.0NS	22.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	31.3NS	26.8NS	26.7NS
STD DEV	11.8NS	10.2NS	9.54NS
MEDIAN	28.0NS	24.0NS	24.0NS
MIN VALUE	18.0NS	18.0NS	18.0NS
MAX VALUE	82.0NS	76.0NS	74.0NS
NUMBER	28	28	28

POST 168HR DATA

ADDRESS HOLD TIME (TAH) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	-6.00NS	-4.00NS	2.00NS
5	-6.00NS	-2.00NS	2.00NS
6	-4.00NS	2.00NS	6.00NS
7	-4.00NS	0.00 S	4.00NS
8	-4.00NS	2.00NS	6.00NS
9	-4.00NS	2.00NS	6.00NS
10	-8.00NS	-4.00NS	2.00NS
11	-4.00NS	0.00 S	4.00NS
12	-4.00NS	-2.00NS	2.00NS
13	-6.00NS	-4.00NS	2.00NS
14	-6.00NS	-2.00NS	2.00NS
15	-4.00NS	0.00 S	4.00NS
16	-6.00NS	-2.00NS	4.00NS
17	-6.00NS	-2.00NS	4.00NS
18	-8.00NS	-4.00NS	0.00 S
19	-6.00NS	-2.00NS	4.00NS
20	-4.00NS	0.00 S	4.00NS
21	-8.00NS	-2.00NS	4.00NS
22	-4.00NS	0.00 S	4.00NS
23	-4.00NS	2.00NS	6.00NS
25	-8.00NS	-2.00NS	2.00NS
26	-4.00NS	0.00 S	4.00NS
27	-4.00NS	2.00NS	6.00NS
28	-6.00NS	0.00 S	4.00NS
30	-6.00NS	-2.00NS	2.00NS
31	-4.00NS	2.00NS	6.00NS
32	-6.00NS	0.00 S	4.00NS
33	-8.00NS	-4.00NS	2.00NS
34	-8.00NS	-4.00NS	2.00NS
35	-4.00NS	-2.00NS	2.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-5.43NS	-929.PS	3.64NS
STD DEV	1.59NS	2.03NS	1.61NS
MEDIAN	-5.00NS	-1.00NS	4.00NS
MIN VALUE	-8.00NS	-4.00NS	0.00 S
MAX VALUE	-4.00NS	2.00NS	6.00NS
NUMBER	28	28	28

POST 168HR DATA

CHIP ENABLE TO WRITE TIME (TWS) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	56.0NS	50.0NS	42.0NS
5	58.0NS	50.0NS	44.0NS
6	58.0NS	48.0NS	40.0NS
7	46.0NS	40.0NS	32.0NS
8	42.0NS	36.0NS	30.0NS
9	42.0NS	36.0NS	32.0NS
10	58.0NS	50.0NS	44.0NS
11	42.0NS	38.0NS	32.0NS
12	50.0NS	46.0NS	40.0NS
13	44.0NS	38.0NS	32.0NS
14	52.0NS	48.0NS	40.0NS
15	42.0NS	36.0NS	32.0NS
16	50.0NS	44.0NS	36.0NS
17	54.0NS	44.0NS	38.0NS
18	58.0NS	52.0NS	46.0NS
19	52.0NS	46.0NS	38.0NS
20	46.0NS	38.0NS	34.0NS
21	68.0NS	54.0NS	48.0NS
22	48.0NS	40.0NS	34.0NS
23	46.0NS	40.0NS	34.0NS
25	68.0NS	58.0NS	52.0NS
26	44.0NS	38.0NS	32.0NS
27	48.0NS	40.0NS	34.0NS
28	48.0NS	44.0NS	38.0NS
30	54.0NS	46.0NS	40.0NS
31	44.0NS	38.0NS	32.0NS
32	68.0NS	56.0NS	1.00KS *
33	58.0NS	52.0NS	44.0NS
34	56.0NS	50.0NS	44.0NS
35	50.0NS	44.0NS	40.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	51.3NS	44.3NS	37.7NS
STD DEV	7.75NS	6.32NS	5.68NS
MEDIAN	50.0NS	44.0NS	38.0NS
MIN VALUE	42.0NS	36.0NS	30.0NS
MAX VALUE	68.0NS	58.0NS	52.0NS
NUMBER	28	28	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

READ CYCLE TIME (TRC) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	150.NS	135.NS	125.NS
5	165.NS	140.NS	130.NS
6	190.NS	155.NS	135.NS
7	160.NS	140.NS	130.NS
8	170.NS	140.NS	125.NS
9	155.NS	135.NS	125.NS
10	165.NS	145.NS	130.NS
11	150.NS	130.NS	115.NS
12	120.NS	115.NS	105.NS
13	165.NS	140.NS	125.NS
14	170.NS	145.NS	135.NS
15	120.NS	110.NS	105.NS
16	205.NS	165.NS	145.NS
17	170.NS	145.NS	135.NS
18	160.NS	140.NS	130.NS
19	190.NS	155.NS	140.NS
20	145.NS	130.NS	120.NS
21	210.NS	180.NS	165.NS
22	185.NS	155.NS	140.NS
23	155.NS	135.NS	125.NS
25	185.NS	165.NS	150.NS
26	150.NS	130.NS	120.NS
27	160.NS	140.NS	130.NS
28	175.NS	145.NS	135.NS
30	155.NS	135.NS	125.NS
31	150.NS	135.NS	125.NS
32	230.NS	200.NS	1.00KS *
33	175.NS	150.NS	135.NS
34	165.NS	145.NS	135.NS
35	135.NS	120.NS	115.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	167.NS	144.NS	130.NS
STD DEV	24.3NS	18.2NS	12.5NS
MEDIAN	165.NS	140.NS	130.NS
MIN VALUE	120.NS	110.NS	105.NS
MAX VALUE	230.NS	200.NS	165.NS
NUMBER	28	28	27

POST 168HR DATA

WRITE CYCLE TIME (TWC) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	86.0NS	82.0NS	80.0NS
5	98.0NS	90.0NS	84.0NS
6	106.NS	88.0NS	82.0NS
7	88.0NS	80.0NS	80.0NS
8	90.0NS	80.0NS	80.0NS
9	84.0NS	80.0NS	80.0NS
10	92.0NS	86.0NS	80.0NS
11	86.0NS	80.0NS	80.0NS
12	82.0NS	80.0NS	80.0NS
13	84.0NS	80.0NS	80.0NS
14	92.0NS	82.0NS	82.0NS
15	80.0NS	80.0NS	80.0NS
16	111.NS	92.0NS	86.0NS
17	90.0NS	80.0NS	80.0NS
18	100.NS	90.0NS	84.0NS
19	106.NS	90.0NS	84.0NS
20	82.0NS	80.0NS	80.0NS
21	106.NS	96.0NS	94.0NS
22	94.0NS	84.0NS	80.0NS
23	86.0NS	80.0NS	80.0NS
25	104.NS	96.0NS	92.0NS
26	82.0NS	80.0NS	80.0NS
27	84.0NS	80.0NS	80.0NS
28	90.0NS	80.0NS	80.0NS
30	88.0NS	82.0NS	80.0NS
31	82.0NS	80.0NS	80.0NS
32	116.NS	96.0NS	1.00KS *
33	98.0NS	88.0NS	84.0NS
34	149.NS	137.NS	132.NS
35	82.0NS	80.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	94.1NS	86.0NS	83.7NS
STD DEV	14.5NS	11.3NS	10.1NS
MEDIAN	90.0NS	80.0NS	80.0NS
MIN VALUE	80.0NS	80.0NS	80.0NS
MAX VALUE	149.NS	137.NS	132.NS
NUMBER	28	28	27

POST 168HR DATA

CHIP ENABLE TIME (TEN) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	30.0NS	26.0NS	22.0NS
5	32.0NS	28.0NS	24.0NS
6	32.0NS	28.0NS	26.0NS
7	30.0NS	26.0NS	24.0NS
8	30.0NS	26.0NS	22.0NS
9	28.0NS	24.0NS	22.0NS
10	32.0NS	26.0NS	24.0NS
11	26.0NS	22.0NS	20.0NS
12	26.0NS	24.0NS	20.0NS
13	32.0NS	26.0NS	24.0NS
14	34.0NS	30.0NS	26.0NS
15	26.0NS	24.0NS	20.0NS
16	32.0NS	26.0NS	24.0NS
17	34.0NS	30.0NS	26.0NS
18	32.0NS	28.0NS	24.0NS
19	30.0NS	26.0NS	24.0NS
20	28.0NS	24.0NS	22.0NS
21	44.0NS	38.0NS	34.0NS
22	32.0NS	28.0NS	26.0NS
23	30.0NS	26.0NS	24.0NS
25	36.0NS	32.0NS	28.0NS
26	28.0NS	24.0NS	22.0NS
27	32.0NS	28.0NS	24.0NS
28	32.0NS	28.0NS	24.0NS
30	30.0NS	26.0NS	24.0NS
31	28.0NS	24.0NS	22.0NS
32	38.0NS	32.0NS	30.0NS
33	32.0NS	28.0NS	26.0NS
34	32.0NS	28.0NS	24.0NS
35	28.0NS	24.0NS	22.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	31.2NS	27.0NS	24.2NS
STD DEV	3.75NS	3.23NS	2.94NS
MEDIAN	32.0NS	26.0NS	24.0NS
MIN VALUE	26.0NS	22.0NS	20.0NS
MAX VALUE	44.0NS	38.0NS	34.0NS
NUMBER	28	28	28

POST 168HR DATA

OUTPUT VOLTAGE LOW (VOL) AT 85 C

SERIAL NO.	
4	135.MV
5	155.MV
6	175.MV
7	160.MV
8	160.MV
9	135.MV
10	150.MV
11	145.MV
12	130.MV
13	160.MV
14	175.MV
15	145.MV
16	160.MV
17	165.MV
18	150.MV
19	155.MV
20	145.MV
21	215.MV
22	155.MV
23	145.MV
25	170.MV
26	145.MV
27	165.MV
28	165.MV
30	145.MV
31	135.MV
32	185.MV
33	165.MV
34	155.MV
35	140.MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	157.MV
STD DEV	17.1MV
MEDIAN	155.MV
MIN VALUE	130.MV
MAX VALUE	215.MV
NUMBER	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

OUTPUT VOLTAGE HIGH (VOH1) AT 85 C

SERIAL NO.	
4	4.36 V
5	4.36 V
6	4.35 V
7	4.36 V
8	4.36 V
9	4.38 V
10	4.36 V
11	4.37 V
12	4.36 V
13	4.36 V
14	4.34 V
15	4.36 V
16	4.36 V
17	4.34 V
18	4.35 V
19	4.36 V
20	4.37 V
21	4.32 V
22	4.36 V
23	4.38 V
25	4.33 V
26	4.37 V
27	4.36 V
28	4.36 V
30	4.36 V
31	4.38 V
32	4.32 V
33	4.34 V
34	4.35 V
35	4.36 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.60 V
MEAN	4.36 V
STD DEV	14.7MV
MEDIAN	4.36 V
MIN VALUE	4.32 V
MAX VALUE	4.38 V
NUMBER	28

POST 168HR DATA

OUTPUT VOLTAGE HIGH (VOH2) AT 85 C

SERIAL NO.	
4	4.87 V
5	4.86 V
6	4.86 V
7	4.86 V
8	4.86 V
9	4.88 V
10	4.86 V
11	4.87 V
12	4.87 V
13	4.86 V
14	4.84 V
15	4.86 V
16	4.86 V
17	4.85 V
18	4.86 V
19	4.86 V
20	4.87 V
21	4.83 V
22	4.86 V
23	4.88 V
25	4.84 V
26	4.88 V
27	4.86 V
28	4.86 V
30	4.87 V
31	4.87 V
32	4.84 V
33	4.84 V
34	4.86 V
35	4.86 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.86 V
STD DEV	11.9MV
MEDIAN	4.86 V
MIN VALUE	4.83 V
MAX VALUE	4.88 V
NUMBER	28

POST 168HR DATA

AVERAGE INPUT LOW CURRENT (IIL) AT 85 C

SERIAL NO.	
4	-34.3NA
5	-52.8NA
6	-7.08NA
7	-29.7NA
8	-11.1NA
9	-53.9NA
10	-25.9NA
11	-19.4NA
12	-25.3NA
13	-19.7NA
14	-14.3NA
15	-22.7NA
16	-7.77NA
17	-15.7NA
18	-15.3NA
19	-20.3NA
20	-11.1NA
21	-16.0NA
22	-61.1NA
23	-44.2NA
25	-21.8NA
26	-14.7NA
27	-16.9NA
28	-19.0NA
30	-24.1NA
31	-56.0NA
32	-18.7NA
33	-37.9NA
34	-33.6NA
35	-57.1NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-25.7NA
STD DEV	15.2NA
MEDIAN	-20.0NA
MIN VALUE	-61.1NA
MAX VALUE	-7.08NA
NUMBER	28

POST 168HR DATA

WORST CASE INPUT LOW CURRENT (IIL) AT 85 C

SERIAL NO.	
4	-58.4NA
5	-65.0NA
6	90.0NA
7	-49.0NA
8	-18.0NA
9	-65.0NA
10	-121.NA
11	-139.NA
12	-107.NA
13	-60.2NA
14	-46.5NA
15	-88.0NA
16	-24.5NA
17	-62.0NA
18	91.0NA
19	-99.8NA
20	-44.5NA
21	-68.5NA
22	-100.NA
23	-88.0NA
25	-55.0NA
26	-60.8NA
27	-54.6NA
28	-63.7NA
30	-75.5NA
31	-94.5NA
32	-84.0NA
33	-81.5NA
34	-39.5NA
35	-437.NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-73.0NA
STD DEV	85.7NA
MEDIAN	-64.3NA
MIN VALUE	-437.NA
MAX VALUE	91.0NA
NUMBER	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR.

POST 168HR DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT 85 C

SERIAL NO.		
4	50.4NA	
5	107.NA	
6	49.5NA	
7	615.NA	*
8	128.NA	
9	359.NA	
10	845.NA	*
11	950.NA	*
12	619.NA	*
13	46.0NA	
14	354.NA	
15	396.NA	
16	270.NA	
17	237.NA	
18	235.NA	
19	296.NA	
20	140.NA	
21	252.NA	
22	312.NA	
23	368.NA	
25	308.NA	
26	24.3NA	
27	20.4NA	
28	135.NA	
30	825.NA	*
31	544.NA	*
32	451.NA	
33	155.NA	
34	195.NA	
35	280.NA	

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	336.NA
STD DEV	244.NA
MEDIAN	288.NA
MIN VALUE	20.4NA
MAX VALUE	950.NA
NUMBER	28

POST 168HR DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT 85 C

SERIAL NO.		
4	75.5NA	
5	392.NA	
6	297.NA	
7	3.63UA	*
8	602.NA	*
9	1.35UA	*
10	3.82UA	*
11	3.92UA	*
12	3.04UA	*
13	234.NA	
14	2.38UA	*
15	2.39UA	*
16	1.35UA	*
17	1.42UA	*
18	1.11UA	*
19	1.61UA	*
20	924.NA	*
21	1.33UA	*
22	1.51UA	*
23	1.60UA	*
25	1.50UA	*
26	39.5NA	
27	32.5NA	
28	860.NA	*
30	6.62UA	*
31	2.83UA	*
32	2.32UA	*
33	870.NA	*
34	979.NA	*
35	1.58UA	*

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	1.79UA
STD DEV	1.41UA
MEDIAN	1.46UA
MIN VALUE	32.5NA
MAX VALUE	6.62UA
NUMBER	28

POST 168HR DATA

SUPPLY CURRENT (ICC180) AT 85 C

SERIAL NO.	
4	200.UA
5	46.1UA
6	49.5UA
7	57.6UA
8	64.1UA
9	76.6UA
10	28.0UA
11	27.1UA
12	36.8UA
13	23.1UA
14	16.5UA
15	62.8UA
16	16.2UA
17	14.0UA
18	21.6UA
19	17.7UA
20	14.2UA
21	12.8UA
22	48.4UA
23	45.7UA
25	49.6UA
26	28.8UA
27	33.3UA
28	25.5UA
30	73.8UA
31	54.6UA
32	10.5UA
33	30.0UA
34	260.UA
35	43.2UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	44.4UA
STD DEV	45.6UA
MEDIAN	31.7UA
MIN VALUE	10.5UA
MAX VALUE	260.UA
NUMBER	28

POST 168HR DATA

SUPPLY CURRENT (ICC1B1) AT 85 C

SERIAL NO.	
4	366.UA
5	55.3UA
6	72.6UA
7	83.8UA
8	62.2UA
9	84.0UA
10	29.1UA
11	28.9UA
12	60.9UA
13	29.3UA
14	18.4UA
15	57.6UA
16	15.2UA
17	14.1UA
18	25.6UA
19	16.1UA
20	16.7UA
21	13.6UA
22	41.2UA
23	52.4UA
25	98.1UA
26	29.8UA
27	32.5UA
28	24.7UA
30	110.UA
31	71.4UA
32	10.2UA
33	1.39MA *
34	346.UA
35	44.3UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	103.UA
STD DEV	256.UA
MEDIAN	36.8UA
MIN VALUE	10.2UA
MAX VALUE	1.39MA
NUMBER	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

SUPPLY CURRENT (ICC2B0) AT 85 C

SERIAL NO.	
4	192.UA
5	213.UA
6	51.6UA
7	65.4UA
8	67.5UA
9	88.0UA
10	28.4UA
11	29.1UA
12	48.6UA
13	30.2UA
14	18.3UA
15	73.6UA
16	18.3UA
17	21.7UA
18	22.4UA
19	19.9UA
20	15.9UA
21	13.6UA
22	480.UA
23	49.9UA
25	55.3UA
26	33.5UA
27	21.2UA
28	29.2UA
30	69.1UA
31	62.6UA
32	9.68MA *
33	73.6UA
34	303.UA
35	51.3UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	411.UA
STD DEV	1.79MA
MEDIAN	49.3UA
MIN VALUE	13.6UA
MAX VALUE	9.68MA
NUMBER	28

POST 168HR DATA

SUPPLY CURRENT (ICC2B1) AT 85 C

SERIAL NO.	
4	288.UA
5	206.UA
6	69.6UA
7	83.1UA
8	60.4UA
9	76.6UA
10	22.8UA
11	20.1UA
12	33.8UA
13	25.0UA
14	14.8UA
15	43.2UA
16	11.4UA
17	18.0UA
18	18.4UA
19	13.2UA
20	11.8UA
21	9.60UA
22	463.UA
23	43.6UA
25	71.9UA
26	22.4UA
27	15.2UA
28	19.2UA
30	72.0UA
31	64.0UA
32	9.69MA *
33	1.46MA *
34	304.UA
35	32.7UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	457.UA
STD DEV	1.80MA
MEDIAN	33.3UA
MIN VALLE	9.60UA
MAX VALLE	9.69MA
NUMBER	28

POST 168HR DATA

OUTPUT LEAKAGE CURRENT (IOL) AT 85 C

SERIAL NO.	
4	5.93UA *
5	945.NA
6	170.NA
7	503.NA
8	145.NA
9	262.NA
10	2.78UA *
11	1.53UA *
12	1.06UA *
13	475.NA
14	252.NA
15	415.NA
16	2.53UA *
17	191.NA
18	481.NA
19	172.NA
20	228.NA
21	200.NA
22	243.NA
23	584.NA
25	1.12UA *
26	218.NA
27	107.NA
28	179.NA
30	4.44UA *
31	487.NA
32	184.NA
33	1.26UA *
34	3.28UA *
35	1.07UA *

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	877.NA
STD DEV	1.08UA
MEDIAN	445.NA
MIN VALUE	107.NA
MAX VALUE	4.44UA
NUMBER	28

POST 168HR DATA

ADDRESS ACCESS TIME (TAA) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	170.NS	145.NS	130.NS
5	180.NS	155.NS	140.NS
6	195.NS	160.NS	145.NS
7	190.NS	165.NS	150.NS
8	175.NS	145.NS	120.NS
9	175.NS	150.NS	135.NS
10	180.NS	155.NS	140.NS
11	165.NS	140.NS	125.NS
12	115.NS	110.NS	100.NS
13	170.NS	145.NS	130.NS
14	190.NS	160.NS	145.NS
15	120.NS	110.NS	105.NS
16	235.NS	190.NS	170.NS
17	175.NS	150.NS	135.NS
18	170.NS	145.NS	135.NS
19	210.NS	175.NS	160.NS
20	155.NS	135.NS	125.NS
21	240.NS	200.NS	185.NS
22	195.NS	165.NS	150.NS
23	175.NS	150.NS	140.NS
25	205.NS	175.NS	160.NS
26	160.NS	135.NS	125.NS
27	175.NS	150.NS	140.NS
28	190.NS	160.NS	145.NS
30	175.NS	150.NS	135.NS
31	165.NS	130.NS	130.NS
32	240.NS	205.NS	1.00KS *
33	270.NS *	235.NS	215.NS
34	260.NS *	220.NS	205.NS
35	125.NS	115.NS	110.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	186.NS	158.NS	143.NS
STD DEV	37.2NS	29.8NS	26.3NS
MEDIAN	175.NS	150.NS	140.NS
MIN VALUE	115.NS	110.NS	100.NS
MAX VALUE	270.NS	235.NS	215.NS
NUMBER	28	28	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

DATA SETUP TIME (TDS) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	20.0NS	18.0NS	18.0NS
5	18.0NS	16.0NS	16.0NS
6	12.0NS	12.0NS	16.0NS
7	10.0NS	12.0NS	18.0NS
8	12.0NS	12.0NS	14.0NS
9	12.0NS	12.0NS	14.0NS
10	18.0NS	16.0NS	18.0NS
11	14.0NS	12.0NS	14.0NS
12	12.0NS	12.0NS	12.0NS
13	16.0NS	14.0NS	16.0NS
14	20.0NS	14.0NS	16.0NS
15	10.0NS	10.0NS	12.0NS
16	16.0NS	18.0NS	24.0NS
17	20.0NS	16.0NS	16.0NS
18	20.0NS	18.0NS	18.0NS
19	16.0NS	18.0NS	22.0NS
20	14.0NS	14.0NS	14.0NS
21	22.0NS	20.0NS	22.0NS
22	12.0NS	12.0NS	14.0NS
23	12.0NS	12.0NS	16.0NS
25	26.0NS	24.0NS	22.0NS
26	12.0NS	14.0NS	14.0NS
27	14.0NS	14.0NS	16.0NS
28	16.0NS	14.0NS	16.0NS
30	18.0NS	16.0NS	16.0NS
31	12.0NS	12.0NS	14.0NS
32	20.0NS	18.0NS	16.0NS
33	18.0NS	16.0NS	18.0NS
34	18.0NS	16.0NS	18.0NS
35	12.0NS	12.0NS	12.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	15.5NS	14.6NS	16.4NS
STD DEV	3.95NS	3.07NS	3.07NS
MEDIAN	15.0NS	14.0NS	16.0NS
MIN VALUE	10.0NS	10.0NS	12.0NS
MAX VALUE	26.0NS	24.0NS	24.0NS
NUMBER	28	28	28

POST 168HR DATA

DATA HOLD TIME (TDH) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	14.0NS	18.0NS	20.0NS
5	18.0NS	20.0NS	24.0NS
6	22.0NS	26.0NS	28.0NS
7	20.0NS	24.0NS	28.0NS
8	20.0NS	22.0NS	26.0NS
9	20.0NS	24.0NS	28.0NS
10	16.0NS	20.0NS	22.0NS
11	18.0NS	22.0NS	24.0NS
12	16.0NS	18.0NS	20.0NS
13	18.0NS	20.0NS	24.0NS
14	18.0NS	20.0NS	24.0NS
15	18.0NS	20.0NS	22.0NS
16	22.0NS	26.0NS	30.0NS
17	18.0NS	20.0NS	24.0NS
18	18.0NS	20.0NS	24.0NS
19	22.0NS	26.0NS	30.0NS
20	18.0NS	22.0NS	26.0NS
21	20.0NS	24.0NS	30.0NS
22	20.0NS	22.0NS	26.0NS
23	20.0NS	24.0NS	28.0NS
25	18.0NS	22.0NS	26.0NS
26	18.0NS	22.0NS	24.0NS
27	20.0NS	24.0NS	28.0NS
28	20.0NS	22.0NS	26.0NS
30	18.0NS	20.0NS	22.0NS
31	20.0NS	22.0NS	26.0NS
32	22.0NS	26.0NS	30.0NS
33	18.0NS	20.0NS	24.0NS
34	18.0NS	20.0NS	24.0NS
35	18.0NS	20.0NS	22.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	19.1NS	22.1NS	25.6NS
STD DEV	1.65NS	2.23NS	2.74NS
MEDIAN	18.0NS	22.0NS	26.0NS
MIN VALUE	16.0NS	18.0NS	20.0NS
MAX VALUE	22.0NS	26.0NS	30.0NS
NUMBER	28	28	28

POST 168HR DATA

WRITE PULSE WIDTH (TWP) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	64.0NS	58.0NS	54.0NS
5	64.0NS	58.0NS	54.0NS
6	64.0NS	56.0NS	52.0NS
7	54.0NS	48.0NS	46.0NS
8	50.0NS	46.0NS	42.0NS
9	48.0NS	44.0NS	40.0NS
10	62.0NS	56.0NS	52.0NS
11	50.0NS	46.0NS	44.0NS
12	56.0NS	54.0NS	50.0NS
13	54.0NS	48.0NS	46.0NS
14	60.0NS	54.0NS	48.0NS
15	48.0NS	46.0NS	42.0NS
16	58.0NS	54.0NS	50.0NS
17	60.0NS	54.0NS	48.0NS
18	66.0NS	60.0NS	54.0NS
19	62.0NS	54.0NS	52.0NS
20	54.0NS	48.0NS	46.0NS
21	76.0NS	68.0NS	62.0NS
22	54.0NS	48.0NS	46.0NS
23	52.0NS	46.0NS	44.0NS
25	78.0NS	70.0NS	64.0NS
26	52.0NS	46.0NS	44.0NS
27	54.0NS	48.0NS	46.0NS
28	56.0NS	52.0NS	48.0NS
30	62.0NS	56.0NS	52.0NS
31	50.0NS	46.0NS	42.0NS
32	72.0NS	64.0NS	1.00KS *
33	64.0NS	58.0NS	54.0NS
34	66.0NS	60.0NS	56.0NS
35	56.0NS	52.0NS	48.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	58.5NS	52.9NS	48.8NS
STD DEV	7.85NS	6.79NS	5.72NS
MEDIAN	56.0NS	53.0NS	48.0NS
MIN VALUE	48.0NS	44.0NS	40.0NS
MAX VALUE	78.0NS	70.0NS	64.0NS
NUMBER	28	28	27

POST 168HR DATA

ADDRESS SETUP TIME (TAS) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	22.0NS	22.0NS	24.0NS
5	32.0NS	30.0NS	30.0NS
6	36.0NS	30.0NS	30.0NS
7	32.0NS	28.0NS	30.0NS
8	32.0NS	26.0NS	28.0NS
9	30.0NS	26.0NS	28.0NS
10	30.0NS	28.0NS	28.0NS
11	30.0NS	26.0NS	28.0NS
12	20.0NS	20.0NS	20.0NS
13	28.0NS	26.0NS	28.0NS
14	30.0NS	30.0NS	30.0NS
15	22.0NS	22.0NS	22.0NS
16	54.0NS	40.0NS	36.0NS
17	30.0NS	28.0NS	28.0NS
18	32.0NS	30.0NS	30.0NS
19	46.0NS	36.0NS	34.0NS
20	28.0NS	28.0NS	28.0NS
21	36.0NS	34.0NS	36.0NS
22	36.0NS	32.0NS	32.0NS
23	30.0NS	28.0NS	30.0NS
25	30.0NS	30.0NS	30.0NS
26	28.0NS	26.0NS	26.0NS
27	30.0NS	28.0NS	30.0NS
28	30.0NS	28.0NS	28.0NS
30	28.0NS	26.0NS	28.0NS
31	26.0NS	26.0NS	28.0NS
32	36.0NS	34.0NS	36.0NS
33	32.0NS	30.0NS	30.0NS
34	82.0NS *	80.0NS *	80.0NS *
35	24.0NS	24.0NS	24.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	33.1NS	30.4NS	30.9NS
STD DEV	11.4NS	10.4NS	10.1NS
MEDIAN	30.0NS	28.0NS	29.0NS
MIN VALUE	20.0NS	20.0NS	20.0NS
MAX VALUE	82.0NS	80.0NS	80.0NS
NUMBER	28	28	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

ADDRESS HOLD TIME (TAH) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	-8.00NS	-4.00NS	0.00 S
5	-8.00NS	-4.00NS	2.00NS
6	-4.00NS	2.00NS	6.00NS
7	-4.00NS	0.00 S	4.00NS
8	-4.00NS	0.00 S	6.00NS
9	-4.00NS	0.00 S	4.00NS
10	-8.00NS	-4.00NS	2.00NS
11	-4.00NS	0.00 S	4.00NS
12	-6.00NS	-2.00NS	0.00 S
13	-8.00NS	-4.00NS	2.00NS
14	-8.00NS	-2.00NS	2.00NS
15	-4.00NS	0.00 S	2.00NS
16	-6.00NS	-2.00NS	4.00NS
17	-6.00NS	-2.00NS	4.00NS
18	-10.0NS	-4.00NS	0.00 S
19	-6.00NS	-2.00NS	4.00NS
20	-4.00NS	0.00 S	4.00NS
21	-10.0NS	-2.00NS	4.00NS
22	-6.00NS	0.00 S	4.00NS
23	-4.00NS	2.00NS	6.00NS
25	-10.0NS	-4.00NS	2.00NS
26	-6.00NS	0.00 S	4.00NS
27	-4.00NS	0.00 S	6.00NS
28	-6.00NS	0.00 S	4.00NS
30	-8.00NS	-4.00NS	2.00NS
31	-4.00NS	2.00NS	6.00NS
32	-6.00NS	-2.00NS	4.00NS
33	-10.0NS	-4.00NS	2.00NS
34	-8.00NS	-4.00NS	2.00NS
35	-6.00NS	-2.00NS	2.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-6.21NS	-1.36NS	3.43NS
STD DEV	2.09NS	1.93NS	1.68NS
MEDIAN	-6.00NS	-2.00NS	4.00NS
MIN VALUE	-10.0NS	-4.00NS	0.00 S
MAX VALUE	-4.00NS	2.00NS	6.00NS
NUMBER	28	28	28

POST 168HR DATA

CHIP ENABLE TO WRITE TIME (TWS) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	64.0NS	56.0NS	48.0NS
5	64.0NS	56.0NS	50.0NS
6	62.0NS	54.0NS	46.0NS
7	50.0NS	44.0NS	34.0NS
8	50.0NS	44.0NS	36.0NS
9	46.0NS	40.0NS	34.0NS
10	62.0NS	54.0NS	48.0NS
11	48.0NS	44.0NS	38.0NS
12	56.0NS	50.0NS	46.0NS
13	52.0NS	46.0NS	40.0NS
14	58.0NS	50.0NS	44.0NS
15	46.0NS	42.0NS	38.0NS
16	56.0NS	50.0NS	40.0NS
17	58.0NS	52.0NS	46.0NS
18	66.0NS	58.0NS	52.0NS
19	60.0NS	52.0NS	42.0NS
20	52.0NS	46.0NS	40.0NS
21	74.0NS *	66.0NS	56.0NS
22	52.0NS	46.0NS	38.0NS
23	50.0NS	44.0NS	38.0NS
25	78.0NS *	68.0NS	60.0NS
26	50.0NS	44.0NS	36.0NS
27	54.0NS	46.0NS	40.0NS
28	56.0NS	50.0NS	42.0NS
30	60.0NS	54.0NS	48.0NS
31	48.0NS	42.0NS	36.0NS
32	74.0NS *	64.0NS	1.00KS *
33	64.0NS	56.0NS	48.0NS
34	64.0NS	58.0NS	50.0NS
35	54.0NS	48.0NS	44.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	57.1NS	50.4NS	43.0NS
STD DEV	8.37NS	7.24NS	6.49NS
MEDIAN	56.0NS	50.0NS	42.0NS
MIN VALUE	46.0NS	40.0NS	34.0NS
MAX VALUE	78.0NS	68.0NS	60.0NS
NUMBER	28	28	27

POST 168HR DATA

READ CYCLE TIME (TRC) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	180.NS	160.NS	145.NS
5	175.NS	155.NS	145.NS
6	190.NS	160.NS	150.NS
7	180.NS	155.NS	145.NS
8	180.NS	150.NS	135.NS
9	165.NS	145.NS	135.NS
10	180.NS	155.NS	145.NS
11	160.NS	140.NS	125.NS
12	135.NS	125.NS	120.NS
13	175.NS	155.NS	140.NS
14	180.NS	160.NS	150.NS
15	135.NS	125.NS	115.NS
16	225.NS	185.NS	160.NS
17	180.NS	155.NS	145.NS
18	175.NS	155.NS	145.NS
19	210.NS	175.NS	155.NS
20	160.NS	140.NS	130.NS
21	230.NS	200.NS	185.NS
22	195.NS	165.NS	150.NS
23	170.NS	150.NS	140.NS
25	210.NS	190.NS	175.NS
26	160.NS	140.NS	130.NS
27	175.NS	155.NS	145.NS
28	190.NS	160.NS	145.NS
30	175.NS	155.NS	145.NS
31	165.NS	145.NS	135.NS
32	245.NS	215.NS	1.00KS *
33	190.NS	165.NS	150.NS
34	190.NS	170.NS	155.NS
35	145.NS	135.NS	130.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	181.NS	158.NS	144.NS
STD DEV	25.5NS	20.3NS	14.8NS
MEDIAN	180.NS	155.NS	145.NS
MIN VALUE	135.NS	125.NS	115.NS
MAX VALUE	245.NS	215.NS	185.NS
NUMBER	28	28	27

POST 168HR DATA

WRITE CYCLE TIME (TWC) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	96.0NS	90.0NS	88.0NS
5	106.NS	98.0NS	94.0NS
6	110.NS	96.0NS	92.0NS
7	96.0NS	86.0NS	86.0NS
8	92.0NS	82.0NS	80.0NS
9	88.0NS	80.0NS	80.0NS
10	102.NS	94.0NS	90.0NS
11	90.0NS	82.0NS	82.0NS
12	86.0NS	84.0NS	80.0NS
13	92.0NS	84.0NS	84.0NS
14	100.NS	94.0NS	88.0NS
15	80.0NS	80.0NS	80.0NS
16	121.NS	104.NS	96.0NS
17	100.NS	92.0NS	86.0NS
18	108.NS	100.NS	94.0NS
19	118.NS	100.NS	96.0NS
20	92.0NS	86.0NS	84.0NS
21	122.NS	112.NS	108.NS
22	100.NS	90.0NS	88.0NS
23	92.0NS	84.0NS	84.0NS
25	118.NS	110.NS	104.NS
26	90.0NS	82.0NS	80.0NS
27	94.0NS	86.0NS	86.0NS
28	96.0NS	90.0NS	86.0NS
30	100.NS	92.0NS	90.0NS
31	86.0NS	82.0NS	80.0NS
32	118.NS	108.NS	1.00KS *
33	106.NS	98.0NS	94.0NS
34	157.NS	149.NS	145.NS
35	90.0NS	86.0NS	82.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	102.NS	93.3NS	89.8NS
STD DEV	15.6NS	14.1NS	13.0NS
MEDIAN	98.0NS	90.0NS	86.0NS
MIN VALLE	80.0NS	80.0NS	80.0NS
MAX VALLE	157.NS	149.NS	145.NS
NUMBER	28	28	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 168HR DATA

CHIP ENABLE TIME (TEN) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	32.0NS	28.0NS	26.0NS
5	34.0NS	30.0NS	26.0NS
6	34.0NS	30.0NS	28.0NS
7	32.0NS	28.0NS	26.0NS
8	32.0NS	28.0NS	24.0NS
9	28.0NS	26.0NS	22.0NS
10	34.0NS	30.0NS	26.0NS
11	28.0NS	24.0NS	22.0NS
12	28.0NS	24.0NS	22.0NS
13	34.0NS	30.0NS	26.0NS
14	36.0NS	32.0NS	28.0NS
15	28.0NS	24.0NS	22.0NS
16	34.0NS	30.0NS	28.0NS
17	36.0NS	32.0NS	28.0NS
18	34.0NS	30.0NS	26.0NS
19	34.0NS	30.0NS	26.0NS
20	30.0NS	26.0NS	24.0NS
21	48.0NS	40.0NS	36.0NS
22	34.0NS	30.0NS	26.0NS
23	32.0NS	28.0NS	24.0NS
25	40.0NS	34.0NS	30.0NS
26	30.0NS	26.0NS	24.0NS
27	34.0NS	30.0NS	26.0NS
28	34.0NS	30.0NS	28.0NS
30	32.0NS	28.0NS	26.0NS
31	30.0NS	26.0NS	24.0NS
32	40.0NS	34.0NS	30.0NS
33	36.0NS	32.0NS	28.0NS
34	34.0NS	30.0NS	28.0NS
35	30.0NS	26.0NS	24.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	33.4NS	29.2NS	26.1NS
STD DEV	4.20NS	3.44NS	2.97NS
MEDIAN	34.0NS	30.0NS	26.0NS
MIN VALUE	28.0NS	24.0NS	22.0NS
MAX VALUE	48.0NS	40.0NS	36.0NS
NUMBER	28	28	28

POST 168HR DATA

OUTPUT VOLTAGE LOW (VOL) AT 125 C

SERIAL NO.	
4	155.MV
5	175.MV
6	195.MV
7	180.MV
8	180.MV
9	155.MV
10	170.MV
11	160.MV
12	145.MV
13	180.MV
14	195.MV
15	160.MV
16	185.MV
17	185.MV
18	170.MV
19	175.MV
20	165.MV
21	240.MV
22	175.MV
23	160.MV
25	195.MV
26	160.MV
27	185.MV
28	185.MV
30	165.MV
31	155.MV
32	210.MV
33	185.MV
34	180.MV
35	155.MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	177.MV
STD DEV	19.3MV
MEDIAN	178.MV
MIN VALUE	145.MV
MAX VALUE	240.MV
NUMBER	28

POST 168HR DATA

OUTPUT VOLTAGE HIGH (VOH1) AT 125 C

SERIAL NO.	
4	4.34 V
5	4.34 V
6	4.32 V
7	4.33 V
8	4.34 V
9	4.36 V
10	4.34 V
11	4.34 V
12	4.34 V
13	4.34 V
14	4.32 V
15	4.34 V
16	4.34 V
17	4.32 V
18	4.33 V
19	4.34 V
20	4.35 V
21	4.29 V
22	4.33 V
23	4.36 V
25	4.30 V
26	4.35 V
27	4.34 V
28	4.33 V
30	4.34 V
31	4.35 V
32	4.30 V
33	4.32 V
34	4.33 V
35	4.34 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.60 V
MEAN	4.33 V
STD DEV	15.8MV
MEDIAN	4.34 V
MIN VALUE	4.29 V
MAX VALUE	4.36 V
NUMBER	28

POST 168HR DATA

OUTPUT VOLTAGE HIGH (VOH2) AT 125 C

SERIAL NO.	
4	4.85 V
5	4.84 V
6	4.83 V
7	4.82 V
8	4.84 V
9	4.85 V
10	4.84 V
11	4.84 V
12	4.84 V
13	4.84 V
14	4.82 V
15	4.84 V
16	4.84 V
17	4.82 V
18	4.84 V
19	4.84 V
20	4.86 V
21	4.81 V
22	4.84 V
23	4.85 V
25	4.81 V
26	4.85 V
27	4.84 V
28	4.83 V
30	4.84 V
31	4.85 V
32	4.82 V
33	4.82 V
34	4.83 V
35	4.84 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.84 V
STD DEV	12.4MV
MEDIAN	4.84 V
MIN VALUE	4.81 V
MAX VALUE	4.86 V
NUMBER	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

AVERAGE INPUT LOW CURRENT (IIL) AT 125 C

SERIAL NO.	
4	-201.NA
5	-315.NA
6	-121.NA
7	-248.NA
8	-93.7NA
9	-388.NA
10	-196.NA
11	-106.NA
12	-192.NA
13	-134.NA
14	-131.NA
15	-198.NA
16	-82.5NA
17	-121.NA
18	-182.NA
19	-111.NA
20	-84.4NA
21	-109.NA
22	-398.NA
23	-265.NA
25	-138.NA
26	-114.NA
27	-99.1NA
28	-138.NA
30	-205.NA
31	-371.NA
32	-118.NA
33	-220.NA
34	-223.NA
35	-206.NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-178.NA
STD DEV	87.7NA
MEDIAN	-138.NA
MIN VALUE	-398.NA
MAX VALUE	-82.5NA
NUMBER	28

POST 168HR DATA

WORST CASE INPUT LOW CURRENT (IIL) AT 125 C

SERIAL NO.	
4	-227.NA
5	-335.NA
6	-129.NA
7	-288.NA
8	-106.NA
9	-434.NA
10	-211.NA
11	-131.NA
12	-211.NA
13	-142.NA
14	-142.NA
15	-226.NA
16	-93.5NA
17	-131.NA
18	-189.NA
19	-123.NA
20	-97.5NA
21	-134.NA
22	-434.NA
23	-301.NA
25	-155.NA
26	-136.NA
27	-108.NA
28	-150.NA
30	-231.NA
31	-406.NA
32	-128.NA
33	-236.NA
34	-236.NA
35	-225.NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-198.NA
STD DEV	96.1NA
MEDIAN	-152.NA
MIN VALUE	-434.NA
MAX VALUE	-93.5NA
NUMBER	28

POST 168HR DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT 125 C

SERIAL NO.	
4	253.NA
5	331.NA
6	138.NA
7	283.NA
8	107.NA
9	427.NA
10	223.NA
11	207.NA
12	208.NA
13	130.NA
14	150.NA
15	225.NA
16	93.1NA
17	139.NA
18	197.NA
19	126.NA
20	83.9NA
21	118.NA
22	425.NA
23	303.NA
25	160.NA
26	131.NA
27	112.NA
28	156.NA
30	215.NA
31	386.NA
32	167.NA
33	245.NA
34	243.NA
35	260.NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	202.NA
STD DEV	92.7NA
MEDIAN	182.NA
MIN VALUE	83.9NA
MAX VALUE	427.NA
NUMBER	28

POST 168HR DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT 125 C

SERIAL NO.	
4	304.NA
5	379.NA
6	164.NA
7	326.NA
8	128.NA
9	715.NA *
10	256.NA
11	345.NA
12	246.NA
13	162.NA
14	178.NA
15	267.NA
16	107.NA
17	161.NA
18	230.NA
19	146.NA
20	100.NA
21	138.NA
22	480.NA
23	519.NA *
25	181.NA
26	155.NA
27	136.NA
28	184.NA
30	274.NA
31	443.NA
32	182.NA
33	278.NA
34	283.NA
35	740.NA *

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	269.NA
STD DEV	166.NA
MEDIAN	207.NA
MIN VALUE	100.NA
MAX VALUE	715.NA
NUMBER	28

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 168HR DATA

SUPPLY CURRENT (ICC1B0) AT 125 C

SERIAL NO.	
4	673.UA
5	234.UA
6	172.UA
7	324.UA
8	164.UA
9	420.UA
10	145.UA
11	168.UA
12	220.UA
13	142.UA
14	104.UA
15	356.UA
16	106.UA
17	88.0UA
18	128.UA
19	114.UA
20	91.4UA
21	82.4UA
22	283.UA
23	263.UA
25	224.UA
26	174.UA
27	154.UA
28	160.UA
30	316.UA
31	323.UA
32	65.6UA
33	156.UA
34	636.UA
35	260.UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	206.UA
STD DEV	123.UA
MEDIAN	166.UA
MIN VALUE	65.6UA
MAX VALUE	636.UA
NUMBER	28

POST 168HR DATA

SUPPLY CURRENT (ICC1B1) AT 125 C

SERIAL NO.	
4	1.05MA *
5	265.UA
6	192.UA
7	309.UA
8	152.UA
9	376.UA
10	152.UA
11	174.UA
12	285.UA
13	159.UA
14	108.UA
15	310.UA
16	97.8UA
17	87.8UA
18	142.UA
19	101.UA
20	97.5UA
21	84.8UA
22	245.UA
23	240.UA
25	349.UA
26	175.UA
27	149.UA
28	150.UA
30	430.UA
31	300.UA
32	64.0UA
33	1.41MA *
34	880.UA
35	245.UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	267.UA
STD DEV	272.UA
MEDIAN	175.UA
MIN VALUE	64.0UA
MAX VALUE	1.41MA
NUMBER	28

POST 168HR DATA

SUPPLY CURRENT (ICC280) AT 125 C

SERIAL NO.	
4	660.UA
5	425.UA
6	180.UA
7	376.UA
8	172.UA
9	503.UA
10	156.UA
11	192.UA
12	254.UA
13	156.UA
14	118.UA
15	411.UA
16	120.UA
17	108.UA
18	131.UA
19	132.UA
20	99.9UA
21	86.4UA
22	752.UA
23	301.UA
25	239.UA
26	204.UA
27	129.UA
28	184.UA
30	312.UA
31	364.UA
32	9.28MA *
33	208.UA
34	652.UA
35	302.UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	576.UA
STD DEV	1.68MA
MEDIAN	198.UA
MIN VALUE	86.4UA
MAX VALUE	9.28MA
NUMBER	28

POST 168HR DATA

SUPPLY CURRENT (ICC2B1) AT 125 C

SERIAL NO.	
4	792.UA
5	373.UA
6	168.UA
7	270.UA
8	136.UA
9	349.UA
10	116.UA
11	134.UA
12	189.UA
13	120.UA
14	84.8UA
15	254.UA
16	76.8UA
17	74.7UA
18	104.UA
19	82.2UA
20	72.5UA
21	63.9UA
22	623.UA
23	200.UA
25	258.UA
26	136.UA
27	86.0UA
28	118.UA
30	304.UA
31	254.UA
32	9.25MA *
33	1.50MA *
34	656.UA
35	192.UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	567.UA
STD DEV	1.69MA
MEDIAN	152.UA
MIN VALUE	63.9UA
MAX VALUE	9.25MA
NUMBER	28

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 168HR DATA

OUTPUT LEAKAGE CURRENT (IOL) AT 125 C

SERIAL NO.	
4	20.7UA *
5	4.43UA *
6	1.11UA *
7	1.92UA *
8	896.NA
9	2.06UA *
10	2.12UA *
11	2.24UA *
12	3.31UA *
13	2.59UA *
14	1.12UA *
15	1.96UA *
16	827.NA
17	1.08UA *
18	2.41UA *
19	810.NA
20	1.30UA *
21	990.NA
22	1.51UA *
23	1.32UA *
25	5.13UA *
26	1.45UA *
27	755.NA
28	1.23UA *
30	11.8UA *
31	2.13UA *
32	773.NA
33	2.26UA *
34	12.8UA *
35	2.02UA *

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	2.49UA
STD DEV	2.86UA
MEDIAN	1.71UA
MIN VALUE	755.NA
MAX VALUE	12.8UA
NUMBER	28

POST 1000-HOUR BURN-IN DATA

POST 1000HR DATA

ADDRESS ACCESS TIME (TAA) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	130.NS	105.NS	95.0NS
5	160.NS	130.NS	110.NS
6	220.NS	160.NS	135.NS
7	155.NS	125.NS	115.NS
8	185.NS	135.NS	115.NS
9	165.NS	130.NS	110.NS
10	160.NS	125.NS	110.NS
11	160.NS	120.NS	105.NS
12	95.0NS	85.0NS	80.0NS
13	165.NS	130.NS	110.NS
14	185.NS	145.NS	125.NS
15	105.NS	95.0NS	85.0NS
16	215.NS	155.NS	125.NS
17	170.NS	135.NS	120.NS
18	155.NS	125.NS	110.NS
19	200.NS	145.NS	125.NS
20	150.NS	120.NS	105.NS
21	225.NS	175.NS	150.NS
22	205.NS	155.NS	135.NS
23	165.NS	130.NS	115.NS
25	175.NS	145.NS	125.NS
26	155.NS	120.NS	105.NS
27	165.NS	135.NS	115.NS
28	190.NS	145.NS	125.NS
30	145.NS	120.NS	105.NS
31	155.NS	125.NS	110.NS
33	190.NS	155.NS	135.NS
34	215.NS	175.NS	150.NS
35	105.NS	95.0NS	90.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	169.NS	134.NS	116.NS
STD DEV	32.9NS	21.5NS	16.6NS
MEDIAN	165.NS	130.NS	115.NS
MIN VALUE	95.0NS	85.0NS	80.0NS
MAX VALUE	225.NS	175.NS	150.NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 1000HR DATA

DATA SETUP TIME (TDS) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	16.0NS	14.0NS	14.0NS
5	20.0NS	16.0NS	14.0NS
6	16.0NS	12.0NS	12.0NS
7	10.0NS	10.0NS	14.0NS
8	14.0NS	12.0NS	12.0NS
9	10.0NS	10.0NS	14.0NS
10	20.0NS	16.0NS	14.0NS
11	12.0NS	10.0NS	10.0NS
12	14.0NS	12.0NS	12.0NS
13	16.0NS	14.0NS	12.0NS
14	20.0NS	14.0NS	14.0NS
15	8.00NS	8.00NS	10.0NS
16	14.0NS	14.0NS	16.0NS
17	20.0NS	16.0NS	14.0NS
18	20.0NS	18.0NS	16.0NS
19	14.0NS	14.0NS	16.0NS
20	14.0NS	12.0NS	10.0NS
21	20.0NS	16.0NS	16.0NS
22	14.0NS	12.0NS	12.0NS
23	12.0NS	12.0NS	14.0NS
25	26.0NS	20.0NS	20.0NS
26	14.0NS	12.0NS	12.0NS
27	14.0NS	12.0NS	12.0NS
28	16.0NS	14.0NS	14.0NS
30	16.0NS	12.0NS	12.0NS
31	12.0NS	10.0NS	12.0NS
33	18.0NS	16.0NS	14.0NS
34	14.0NS	12.0NS	14.0NS
35	14.0NS	12.0NS	10.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	15.3NS	13.0NS	13.3NS
STD DEV	3.82NS	2.63NS	2.25NS
MEDIAN	14.0NS	12.0NS	14.0NS
MIN VALUE	8.00NS	8.00NS	10.0NS
MAX VALUE	26.0NS	20.0NS	20.0NS
NUMBER	27	27	27

POST 1000HR DATA

DATA HOLD TIME (TDH) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	14.0NS	16.0NS	18.0NS
5	18.0NS	18.0NS	22.0NS
6	20.0NS	24.0NS	28.0NS
7	18.0NS	20.0NS	26.0NS
8	18.0NS	20.0NS	26.0NS
9	18.0NS	22.0NS	26.0NS
10	14.0NS	18.0NS	20.0NS
11	16.0NS	18.0NS	22.0NS
12	14.0NS	16.0NS	18.0NS
13	16.0NS	18.0NS	20.0NS
14	18.0NS	18.0NS	22.0NS
15	18.0NS	18.0NS	22.0NS
16	20.0NS	22.0NS	26.0NS
17	18.0NS	18.0NS	22.0NS
18	18.0NS	18.0NS	22.0NS
19	20.0NS	22.0NS	26.0NS
20	18.0NS	20.0NS	22.0NS
21	18.0NS	22.0NS	26.0NS
22	20.0NS	22.0NS	26.0NS
23	18.0NS	22.0NS	26.0NS
25	16.0NS	18.0NS	22.0NS
26	18.0NS	18.0NS	22.0NS
27	18.0NS	22.0NS	26.0NS
28	18.0NS	20.0NS	26.0NS
30	14.0NS	18.0NS	20.0NS
31	18.0NS	20.0NS	26.0NS
33	18.0NS	18.0NS	22.0NS
34	16.0NS	18.0NS	20.0NS
35	16.0NS	18.0NS	20.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	17.5NS	19.6NS	23.3NS
STD DEV	1.69NS	1.99NS	2.72NS
MEDIAN	18.0NS	18.0NS	22.0NS
MIN VALUE	14.0NS	16.0NS	18.0NS
MAX VALUE	20.0NS	24.0NS	28.0NS
NUMBER	27	27	27

POST 1000HR DATA

WRITE PULSE WIDTH (TWP) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	48.0NS	44.0NS	38.0NS
5	54.0NS	46.0NS	40.0NS
6	54.0NS	46.0NS	38.0NS
7	42.0NS	38.0NS	36.0NS
8	40.0NS	38.0NS	32.0NS
9	40.0NS	36.0NS	32.0NS
10	54.0NS	46.0NS	40.0NS
11	40.0NS	38.0NS	32.0NS
12	46.0NS	46.0NS	40.0NS
13	46.0NS	38.0NS	36.0NS
14	52.0NS	46.0NS	38.0NS
15	42.0NS	38.0NS	38.0NS
16	46.0NS	46.0NS	40.0NS
17	48.0NS	46.0NS	38.0NS
18	56.0NS	48.0NS	46.0NS
19	48.0NS	46.0NS	40.0NS
20	46.0NS	38.0NS	36.0NS
21	62.0NS	54.0NS	46.0NS
22	44.0NS	38.0NS	38.0NS
23	46.0NS	38.0NS	34.0NS
25	60.0NS	54.0NS	46.0NS
26	40.0NS	38.0NS	32.0NS
27	46.0NS	38.0NS	38.0NS
28	48.0NS	40.0NS	38.0NS
30	46.0NS	42.0NS	38.0NS
31	40.0NS	38.0NS	36.0NS
33	54.0NS	46.0NS	40.0NS
34	48.0NS	44.0NS	40.0NS
35	46.0NS	42.0NS	38.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	47.4NS	42.4NS	38.0NS
STD DEV	5.96NS	4.97NS	3.81NS
MEDIAN	46.0NS	42.0NS	38.0NS
MIN VALUE	40.0NS	36.0NS	32.0NS
MAX VALUE	62.0NS	54.0NS	46.0NS
NUMBER	27	27	27

POST 1000HR DATA

ADDRESS SETUP TIME (TAS) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	18.0NS	18.0NS	18.0NS
5	24.0NS	22.0NS	22.0NS
6	46.0NS	32.0NS	28.0NS
7	30.0NS	24.0NS	24.0NS
8	38.0NS	26.0NS	22.0NS
9	32.0NS	26.0NS	24.0NS
10	24.0NS	20.0NS	20.0NS
11	30.0NS	24.0NS	22.0NS
12	16.0NS	16.0NS	16.0NS
13	28.0NS	22.0NS	20.0NS
14	30.0NS	24.0NS	22.0NS
15	16.0NS	16.0NS	18.0NS
16	46.0NS	32.0NS	28.0NS
17	28.0NS	22.0NS	22.0NS
18	24.0NS	22.0NS	22.0NS
19	42.0NS	30.0NS	26.0NS
20	24.0NS	20.0NS	22.0NS
21	30.0NS	24.0NS	26.0NS
22	42.0NS	32.0NS	28.0NS
23	32.0NS	26.0NS	24.0NS
25	26.0NS	24.0NS	24.0NS
26	28.0NS	22.0NS	20.0NS
27	28.0NS	24.0NS	22.0NS
28	32.0NS	26.0NS	22.0NS
30	22.0NS	20.0NS	20.0NS
31	30.0NS	24.0NS	24.0NS
33	28.0NS	22.0NS	22.0NS
34	74.0NS *	56.0NS	54.0NS
35	18.0NS	18.0NS	18.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	31.3NS	25.0NS	23.7NS
STD DEV	11.4NS	7.39NS	6.64NS
MEDIAN	30.0NS	24.0NS	22.0NS
MIN VALUE	16.0NS	16.0NS	16.0NS
MAX VALUE	74.0NS	56.0NS	54.0NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 1000HR DATA

ADDRESS HOLD TIME (TAH) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	-6.00NS	-2.00NS	2.00NS
5	-6.00NS	-2.00NS	2.00NS
6	-4.00NS	2.00NS	6.00NS
7	-4.00NS	2.00NS	4.00NS
8	-4.00NS	0.00 S	4.00NS
9	-2.00NS	2.00NS	6.00NS
10	-6.00NS	-2.00NS	2.00NS
11	-4.00NS	0.00 S	4.00NS
12	-4.00NS	-2.00NS	2.00NS
13	-6.00NS	-2.00NS	2.00NS
14	-6.00NS	-2.00NS	2.00NS
15	-4.00NS	0.00 S	4.00NS
16	-6.00NS	0.00 S	4.00NS
17	-6.00NS	-2.00NS	4.00NS
18	-6.00NS	-4.00NS	2.00NS
19	-6.00NS	0.00 S	4.00NS
20	-4.00NS	0.00 S	4.00NS
21	-6.00NS	0.00 S	4.00NS
22	-4.00NS	2.00NS	6.00NS
23	-2.00NS	2.00NS	6.00NS
25	-6.00NS	-2.00NS	2.00NS
26	-4.00NS	0.00 S	4.00NS
27	-4.00NS	2.00NS	6.00NS
28	-4.00NS	0.00 S	4.00NS
30	-6.00NS	-2.00NS	2.00NS
31	-2.00NS	2.00NS	6.00NS
33	-6.00NS	-2.00NS	2.00NS
34	-6.00NS	-2.00NS	2.00NS
35	-4.00NS	-2.00NS	2.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-4.67NS	-370.PS	3.70NS
STD DEV	1.33NS	1.72NS	1.51NS
MEDIAN	-4.00NS	0.00 S	4.00NS
MIN VALUE	-6.00NS	-4.00NS	2.00NS
MAX VALUE	-2.00NS	2.00NS	6.00NS
NUMBER	27	27	27

POST 1000HR DATA

CHIP ENABLE TO WRITE TIME (TWS) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	44.0NS	38.0NS	32.0NS
5	50.0NS	40.0NS	34.0NS
6	50.0NS	40.0NS	32.0NS
7	38.0NS	34.0NS	28.0NS
8	36.0NS	34.0NS	26.0NS
9	36.0NS	30.0NS	24.0NS
10	50.0NS	40.0NS	34.0NS
11	36.0NS	32.0NS	26.0NS
12	42.0NS	38.0NS	34.0NS
13	40.0NS	32.0NS	26.0NS
14	48.0NS	42.0NS	32.0NS
15	38.0NS	34.0NS	28.0NS
16	44.0NS	38.0NS	30.0NS
17	50.0NS	38.0NS	32.0NS
18	52.0NS	46.0NS	40.0NS
19	48.0NS	42.0NS	34.0NS
20	40.0NS	34.0NS	30.0NS
21	54.0NS	50.0NS	38.0NS
22	40.0NS	36.0NS	28.0NS
23	40.0NS	32.0NS	28.0NS
25	54.0NS	50.0NS	40.0NS
26	38.0NS	34.0NS	26.0NS
27	44.0NS	36.0NS	30.0NS
28	44.0NS	34.0NS	32.0NS
30	44.0NS	38.0NS	32.0NS
31	36.0NS	32.0NS	26.0NS
33	50.0NS	42.0NS	36.0NS
34	44.0NS	40.0NS	34.0NS
35	42.0NS	36.0NS	32.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	43.6NS	37.6NS	31.0NS
STD DEV	5.68NS	5.17NS	4.26NS
MEDIAN	44.0NS	36.0NS	32.0NS
MIN VALUE	36.0NS	30.0NS	24.0NS
MAX VALUE	54.0NS	50.0NS	40.0NS
NUMBER	27	27	27

POST 1000HR DATA

READ CYCLE TIME (TRC) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	130.NS	115.NS	105.NS
5	155.NS	130.NS	115.NS
6	180.NS	145.NS	125.NS
7	140.NS	120.NS	110.NS
8	160.NS	130.NS	110.NS
9	140.NS	120.NS	110.NS
10	155.NS	125.NS	115.NS
11	140.NS	115.NS	105.NS
12	105.NS	100.NS	100.NS
13	155.NS	125.NS	110.NS
14	160.NS	135.NS	120.NS
15	110.NS	100.NS	100.NS
16	185.NS	140.NS	125.NS
17	165.NS	135.NS	120.NS
18	150.NS	125.NS	115.NS
19	170.NS	140.NS	120.NS
20	140.NS	115.NS	105.NS
21	195.NS	160.NS	145.NS
22	175.NS	145.NS	130.NS
23	140.NS	125.NS	110.NS
25	170.NS	140.NS	130.NS
26	140.NS	115.NS	105.NS
27	150.NS	125.NS	115.NS
28	165.NS	135.NS	115.NS
30	145.NS	120.NS	110.NS
31	145.NS	120.NS	110.NS
33	165.NS	135.NS	120.NS
34	150.NS	125.NS	115.NS
35	115.NS	105.NS	100.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	152.NS	127.NS	115.NS
STD DEV	21.0NS	13.7NS	10.2NS
MEDIAN	150.NS	125.NS	115.NS
MIN VALUE	105.NS	100.NS	100.NS
MAX VALUE	195.NS	160.NS	145.NS
NUMBER	27	27	27

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POST 1000HR DATA

WRITE CYCLE TIME (TWC) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	80.0NS	80.0NS	80.0NS
5	88.0NS	80.0NS	80.0NS
6	110.NS	88.0NS	80.0NS
7	82.0NS	80.0NS	80.0NS
8	88.0NS	80.0NS	80.0NS
9	82.0NS	80.0NS	80.0NS
10	88.0NS	80.0NS	80.0NS
11	80.0NS	80.0NS	80.0NS
12	80.0NS	80.0NS	80.0NS
13	84.0NS	80.0NS	80.0NS
14	92.0NS	80.0NS	80.0NS
15	80.0NS	80.0NS	80.0NS
16	102.NS	88.0NS	80.0NS
17	86.0NS	80.0NS	80.0NS
18	90.0NS	80.0NS	80.0NS
19	100.NS	86.0NS	80.0NS
20	80.0NS	80.0NS	80.0NS
21	102.NS	88.0NS	82.0NS
22	96.0NS	80.0NS	80.0NS
23	88.0NS	80.0NS	80.0NS
25	96.0NS	88.0NS	80.0NS
26	80.0NS	80.0NS	80.0NS
27	84.0NS	80.0NS	80.0NS
28	90.0NS	80.0NS	80.0NS
30	80.0NS	80.0NS	80.0NS
31	80.0NS	80.0NS	80.0NS
33	92.0NS	80.0NS	80.0NS
34	132.NS	110.NS	104.NS
35	80.0NS	80.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	89.8NS	82.5NS	81.0NS
STD DEV	11.8NS	6.15NS	4.53NS
MEDIAN	88.0NS	80.0NS	80.0NS
MIN VALUE	80.0NS	80.0NS	80.0NS
MAX VALUE	132.NS	110.NS	104.NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

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POST 1000HR DATA

CHIP ENABLE TIME (TEN) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	24.0NS	20.0NS	18.0NS
5	26.0NS	22.0NS	20.0NS
6	30.0NS	24.0NS	22.0NS
7	24.0NS	20.0NS	18.0NS
8	26.0NS	22.0NS	18.0NS
9	24.0NS	20.0NS	18.0NS
10	26.0NS	22.0NS	20.0NS
11	22.0NS	18.0NS	16.0NS
12	22.0NS	18.0NS	16.0NS
13	26.0NS	22.0NS	20.0NS
14	30.0NS	26.0NS	22.0NS
15	22.0NS	20.0NS	16.0NS
16	26.0NS	22.0NS	20.0NS
17	30.0NS	24.0NS	22.0NS
18	26.0NS	22.0NS	20.0NS
19	26.0NS	22.0NS	20.0NS
20	24.0NS	20.0NS	18.0NS
21	38.0NS	32.0NS	28.0NS
22	30.0NS	24.0NS	22.0NS
23	24.0NS	22.0NS	18.0NS
25	30.0NS	26.0NS	22.0NS
26	24.0NS	20.0NS	18.0NS
27	28.0NS	24.0NS	20.0NS
28	28.0NS	24.0NS	20.0NS
30	24.0NS	22.0NS	18.0NS
31	24.0NS	20.0NS	18.0NS
33	28.0NS	24.0NS	22.0NS
34	26.0NS	22.0NS	20.0NS
35	24.0NS	20.0NS	18.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	26.4NS	22.3NS	19.6NS
STD DEV	3.40NS	2.81NS	2.50NS
MEDIAN	26.0NS	22.0NS	20.0NS
MIN VALUE	22.0NS	18.0NS	16.0NS
MAX VALUE	38.0NS	32.0NS	28.0NS
NUMBER	27	27	27

POST 1000HR DATA

OUTPUT VOLTAGE LOW (VCL) AT 25 C

SERIAL NO.	
4	115.MV
5	135.MV
6	150.MV
7	135.MV
8	140.MV
9	115.MV
10	130.MV
11	120.MV
12	110.MV
13	140.MV
14	155.MV
15	125.MV
16	135.MV
17	145.MV
18	130.MV
19	130.MV
20	125.MV
21	180.MV
22	135.MV
23	125.MV
25	145.MV
26	120.MV
27	145.MV
28	145.MV
30	125.MV
31	115.MV
33	140.MV
34	130.MV
35	120.MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	134.MV
STD DEV	14.5MV
MEDIAN	130.MV
MIN VALLE	110.MV
MAX VALLE	180.MV
NUMBER	27

POST 1000HR DATA

OUTPUT VOLTAGE HIGH (VOH1) AT 25 C

SERIAL NO.	
4	4.39 V
5	4.38 V
6	4.38 V
7	4.39 V
8	4.38 V
9	4.40 V
10	4.38 V
11	4.39 V
12	4.39 V
13	4.38 V
14	4.36 V
15	4.39 V
16	4.39 V
17	4.37 V
18	4.38 V
19	4.38 V
20	4.39 V
21	4.35 V
22	4.38 V
23	4.39 V
25	4.36 V
26	4.39 V
27	4.38 V
28	4.38 V
30	4.39 V
31	4.40 V
33	4.37 V
34	4.38 V
35	4.38 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.60 V
MEAN	4.38 V
STD DEV	11.6MV
MEDIAN	4.38 V
MIN VALUE	4.35 V
MAX VALUE	4.40 V
NUMBER	27

C3

POST 1000HR DATA

OUTPUT VOLTAGE HIGH (VOH2) AT 25 C

SERIAL NO.	
4	4.89 V
5	4.89 V
6	4.88 V
7	4.88 V
8	4.89 V
9	4.90 V
10	4.89 V
11	4.89 V
12	4.89 V
13	4.88 V
14	4.88 V
15	4.89 V
16	4.89 V
17	4.88 V
18	4.88 V
19	4.89 V
20	4.89 V
21	4.86 V
22	4.88 V
23	4.90 V
25	4.87 V
26	4.89 V
27	4.89 V
28	4.88 V
30	4.89 V
31	4.90 V
33	4.88 V
34	4.88 V
35	4.88 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.89 V
STD DEV	8.86MV
MEDIAN	4.89 V
MIN VALUE	4.86 V
MAX VALUE	4.90 V
NUMBER	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 1000HR DATA

AVERAGE INPUT LOW CURRENT (IIL) AT 25 C

SERIAL NO.	
4	-962.PA
5	-1.58NA
6	269.PA
7	0.00 A
8	385.PA
9	-1.38NA
10	-154.PA
11	231.PA
12	38.5PA
13	192.PA
14	269.PA
15	-76.9PA
16	538.PA
17	308.PA
18	-269.PA
19	346.PA
20	577.PA
21	346.PA
22	-1.50NA
23	-1.58NA
25	154.PA
26	346.PA
27	231.PA
28	76.9PA
30	-577.PA
31	-1.54NA
33	-308.PA
34	-654.PA
35	-76.9PA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-141.PA
STD DEV	638.PA
MEDIAN	76.9PA
MIN VALUE	-1.58NA
MAX VALUE	577.PA
NUMBER	27

POST 1000HR DATA

WORST CASE INPUT LOW CURRENT (IIL) AT 25 C

SERIAL NO.	
4	-2.00NA
5	-2.50NA
6	500.PA
7	0.00 A
8	1.00NA
9	-2.00NA
10	-1.00NA
11	1.00NA
12	-1.00NA
13	500.PA
14	1.00NA
15	-1.00NA
16	1.00NA
17	1.00NA
18	-1.00NA
19	1.00NA
20	1.00NA
21	1.00NA
22	-2.50NA
23	-15.5NA
25	500.PA
26	1.50NA
27	1.00NA
28	-1.00NA
30	-1.00NA
31	-4.50NA
33	-1.00NA
34	-1.50NA
35	-1.00NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-815.PA
STD DEV	3.19NA
MEDIAN	0.00 A
MIN VALLE	-15.5NA
MAX VALLE	1.50NA
NUMBER	27

POST 1000HR DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT 25 C

SERIAL NO.	
4	3.50NA
5	4.12NA
6	1.96NA
7	2.62NA
8	2.08NA
9	3.88NA
10	2.69NA
11	2.08NA
12	2.50NA
13	2.19NA
14	2.35NA
15	2.42NA
16	2.00NA
17	2.23NA
18	2.73NA
19	1.92NA
20	1.65NA
21	2.12NA
22	4.12NA
23	16.3NA
25	2.42NA
26	2.27NA
27	2.04NA
28	1.96NA
30	3.19NA
31	3.50NA
33	2.96NA
34	3.42NA
35	2.42NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	3.04NA
STD DEV	2.68NA
MEDIAN	2.42NA
MIN VALUE	1.65NA
MAX VALUE	16.3NA
NUMBER	27

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POST 1000HR DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT 25 C

SERIAL NO.	
4	4.50NA
5	5.00NA
6	2.50NA
7	3.50NA
8	2.50NA
9	4.50NA
10	3.50NA
11	3.00NA
12	3.00NA
13	3.00NA
14	3.00NA
15	3.50NA
16	2.50NA
17	3.00NA
18	3.50NA
19	2.50NA
20	3.00NA
21	2.50NA
22	5.00NA
23	175.NA
25	3.00NA
26	3.00NA
27	3.00NA
28	2.50NA
30	4.00NA
31	4.50NA
33	3.50NA
34	4.00NA
35	3.00NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	9.61NA
STD DEV	32.4NA
MEDIAN	3.00NA
MIN VALUE	2.50NA
MAX VALUE	175.NA
NUMBER	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 1000HR DATA

SUPPLY CURRENT (ICC1B0) AT 25 C

SERIAL NO.	
4	25.3UA
5	3.25UA
6	16.7UA
7	2.02UA
8	16.4UA
9	6.12UA
10	2.04UA
11	1.02UA
12	1.68UA
13	1.16UA
14	936.NA
15	2.43UA
16	600.NA
17	558.NA
18	1.15UA
19	605.NA
20	543.NA
21	617.NA
22	2.12UA
23	4.24UA
25	4.09UA
26	1.03UA
27	3.61UA
28	995.NA
30	12.7UA
31	2.19UA
33	6.18UA
34	149.UA
35	1.69UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	8.96UA
STD DEV	27.7UA
MEDIAN	2.02UA
MIN VALUE	543.NA
MAX VALUE	149.UA
NUMBER	27

POST 1000HR DATA

SUPPLY CURRENT (ICC1B1) AT 25 C

SERIAL NO.	
4	102.UA
5	4.22UA
6	26.5UA
7	25.5UA
8	16.5UA
9	19.3UA
10	2.24UA
11	1.30UA
12	8.12UA
13	1.70UA
14	1.29UA
15	3.09UA
16	697.NA
17	664.NA
18	1.45UA
19	611.NA
20	808.NA
21	797.NA
22	1.88UA
23	13.2UA
25	15.1UA
26	1.62UA
27	3.66UA
28	1.09UA
30	18.1UA
31	19.6UA
33	1.41MA *
34	160.UA
35	2.66UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	64.9UA
STD DEV	265.UA
MEDIAN	2.66UA
MIN VALUE	611.NA
MAX VALUE	1.41MA
NUMBER	27

POST 1000HR DATA

SUPPLY CURRENT (ICC2B0) AT 25 C

SERIAL NO.	
4	25.8UA
5	147.UA
6	16.7UA
7	2.33UA
8	16.5UA
9	6.82UA
10	2.08UA
11	1.13UA
12	4.43UA
13	4.88UA
14	992.NA
15	3.21UA
16	708.NA
17	7.13UA
18	1.17UA
19	687.NA
20	654.NA
21	556.NA
22	470.UA
23	2.97UA
25	5.39UA
26	1.57UA
27	2.25UA
28	1.19UA
30	7.00UA
31	2.47UA
33	47.1UA
34	193.UA
35	2.45UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	29.8UA
STD DEV	93.6UA
MEDIAN	2.47UA
MIN VALLE	556.NA
MAX VALLE	470.UA
NUMBER	27

POST 1000HR DATA

SUPPLY CURRENT (ICC2B1) AT 25 C

SERIAL NO.	
4	102.UA
5	147.UA
6	26.1UA
7	26.8UA
8	16.3UA
9	20.0UA
10	1.91UA
11	826.NA
12	1.79UA
13	4.73UA
14	1.10UA
15	1.77UA
16	463.NA
17	7.00UA
18	1.02UA
19	458.NA
20	475.NA
21	379.NA
22	468.UA
23	11.4UA
25	11.4UA
26	1.05UA
27	2.05UA
28	687.NA
30	8.03UA
31	19.2UA
33	1.47MA *
34	194.UA
35	1.35UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	85.0UA
STD DEV	286.UA
MEDIAN	2.05UA
MIN VALUE	379.NA
MAX VALUE	1.47MA
NUMBER	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 1000HR DATA

OUTPUT LEAKAGE CURRENT (IOL) AT 25 C

SERIAL NO.	
4	749.NA
5	69.0NA
6	9.00NA
7	11.5NA
8	6.50NA
9	13.0NA
10	20.5NA
11	18.5NA
12	25.5NA
13	31.0NA
14	9.50NA
15	11.0NA
16	6.50NA
17	11.0NA
18	26.5NA
19	7.00NA
20	10.5NA
21	7.50NA
22	13.5NA
23	10.0NA
25	82.0NA
26	12.5NA
27	6.50NA
28	9.00NA
30	353.NA
31	12.5NA
33	21.0NA
34	339.NA
35	14.0NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	40.7NA
STD DEV	87.6NA
MEDIAN	12.5NA
MIN VALUE	6.50NA
MAX VALUE	353.NA
NUMBER	27

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POST 1000HR DATA

ADDRESS ACCESS TIME (TAA) AT -40 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	125.NS	100.NS	85.0NS
5	175.NS	130.NS	110.NS
6	325.NS *	185.NS	135.NS
7	155.NS	115.NS	100.NS
8	270.NS *	150.NS	115.NS
9	185.NS	125.NS	100.NS
10	175.NS	130.NS	105.NS
11	200.NS	130.NS	105.NS
12	90.0NS	80.0NS	75.0NS
13	205.NS	135.NS	110.NS
14	230.NS	155.NS	125.NS
15	105.NS	90.0NS	80.0NS
16	290.NS *	160.NS	125.NS
17	205.NS	140.NS	115.NS
18	175.NS	130.NS	110.NS
19	255.NS *	155.NS	120.NS
20	170.NS	120.NS	100.NS
21	245.NS	175.NS	140.NS
22	265.NS *	160.NS	125.NS
23	185.NS	130.NS	105.NS
25	175.NS	135.NS	115.NS
26	185.NS	125.NS	100.NS
27	190.NS	135.NS	110.NS
28	235.NS	155.NS	120.NS
30	150.NS	115.NS	100.NS
31	165.NS	120.NS	100.NS
33	205.NS	155.NS	130.NS
34	240.NS	180.NS	150.NS
35	100.NS	90.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	199.NS	136.NS	111.NS
STD DEV	55.1NS	25.7NS	17.4NS
MEDIAN	190.NS	135.NS	110.NS
MIN VALUE	90.0NS	80.0NS	75.0NS
MAX VALUE	325.NS	185.NS	150.NS
NUMBER	27	27	27

POST 1000HR DATA

DATA SETUP TIME (TDS) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	16.0NS	10.0NS	10.0NS
5	18.0NS	14.0NS	12.0NS
6	14.0NS	8.00NS	10.0NS
7	6.00NS	6.00NS	8.00NS
8	12.0NS	8.00NS	10.0NS
9	8.00NS	8.00NS	8.00NS
10	16.0NS	14.0NS	10.0NS
11	10.0NS	8.00NS	8.00NS
12	12.0NS	8.00NS	8.00NS
13	14.0NS	10.0NS	10.0NS
14	16.0NS	12.0NS	10.0NS
15	8.00NS	8.00NS	8.00NS
16	12.0NS	12.0NS	12.0NS
17	16.0NS	14.0NS	12.0NS
18	18.0NS	14.0NS	12.0NS
19	12.0NS	12.0NS	12.0NS
20	10.0NS	10.0NS	8.00NS
21	16.0NS	14.0NS	12.0NS
22	10.0NS	8.00NS	8.00NS
23	10.0NS	8.00NS	8.00NS
25	22.0NS	18.0NS	16.0NS
26	10.0NS	8.00NS	10.0NS
27	12.0NS	10.0NS	10.0NS
28	14.0NS	10.0NS	10.0NS
30	14.0NS	10.0NS	10.0NS
31	10.0NS	8.00NS	8.00NS
33	16.0NS	14.0NS	12.0NS
34	10.0NS	10.0NS	10.0NS
35	12.0NS	8.00NS	8.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	12.6NS	10.3NS	9.93NS
STD DEV	3.43NS	2.81NS	1.92NS
MEDIAN	12.0NS	10.0NS	10.0NS
MIN VALUE	6.00NS	6.00NS	8.00NS
MAX VALUE	22.0NS	18.0NS	16.0NS
NUMBER	27	27	27

POST 1000HR DATA

DATA HOLD TIME (TDH) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	14.0NS	14.0NS	18.0NS
5	18.0NS	18.0NS	22.0NS
6	22.0NS	24.0NS	28.0NS
7	18.0NS	18.0NS	22.0NS
8	18.0NS	22.0NS	22.0NS
9	18.0NS	20.0NS	22.0NS
10	14.0NS	18.0NS	20.0NS
11	18.0NS	18.0NS	22.0NS
12	14.0NS	18.0NS	18.0NS
13	16.0NS	18.0NS	20.0NS
14	18.0NS	18.0NS	22.0NS
15	18.0NS	18.0NS	22.0NS
16	20.0NS	22.0NS	26.0NS
17	18.0NS	20.0NS	22.0NS
18	18.0NS	20.0NS	22.0NS
19	20.0NS	24.0NS	26.0NS
20	18.0NS	18.0NS	22.0NS
21	20.0NS	22.0NS	26.0NS
22	20.0NS	20.0NS	26.0NS
23	18.0NS	20.0NS	22.0NS
25	16.0NS	18.0NS	20.0NS
26	18.0NS	18.0NS	20.0NS
27	18.0NS	20.0NS	26.0NS
28	18.0NS	20.0NS	22.0NS
30	14.0NS	18.0NS	20.0NS
31	18.0NS	20.0NS	22.0NS
33	18.0NS	18.0NS	20.0NS
34	14.0NS	18.0NS	20.0NS
35	14.0NS	18.0NS	20.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	17.6NS	19.5NS	22.2NS
STD DEV	2.06NS	1.85NS	2.45NS
MEDIAN	18.0NS	18.0NS	22.0NS
MIN VALUE	14.0NS	18.0NS	18.0NS
MAX VALUE	22.0NS	24.0NS	28.0NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 1000HR DATA

WRITE PULSE WIDTH (TWP) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	40.0NS	38.0NS	32.0NS
5	50.0NS	44.0NS	40.0NS
6	50.0NS	42.0NS	36.0NS
7	38.0NS	38.0NS	32.0NS
8	42.0NS	38.0NS	34.0NS
9	38.0NS	32.0NS	30.0NS
10	50.0NS	44.0NS	40.0NS
11	40.0NS	32.0NS	30.0NS
12	52.0NS	44.0NS	42.0NS
13	42.0NS	32.0NS	30.0NS
14	54.0NS	46.0NS	40.0NS
15	42.0NS	38.0NS	36.0NS
16	46.0NS	38.0NS	38.0NS
17	54.0NS	46.0NS	40.0NS
18	54.0NS	48.0NS	38.0NS
19	48.0NS	44.0NS	40.0NS
20	44.0NS	38.0NS	34.0NS
21	56.0NS	48.0NS	38.0NS
22	44.0NS	38.0NS	32.0NS
23	38.0NS	38.0NS	32.0NS
25	56.0NS	48.0NS	44.0NS
26	40.0NS	32.0NS	30.0NS
27	44.0NS	38.0NS	34.0NS
28	44.0NS	40.0NS	32.0NS
30	44.0NS	38.0NS	38.0NS
31	38.0NS	32.0NS	30.0NS
33	50.0NS	44.0NS	40.0NS
34	46.0NS	38.0NS	38.0NS
35	46.0NS	42.0NS	40.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	45.9NS	39.9NS	35.9NS
STD DEV	5.70NS	5.08NS	4.18NS
MEDIAN	44.0NS	38.0NS	36.0NS
MIN VALUE	38.0NS	32.0NS	30.0NS
MAX VALUE	56.0NS	48.0NS	44.0NS
NUMBER	27	27	27

POST 1000HR DATA

ADDRESS SETUP TIME (TAS) AT -40 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	18.0NS	16.0NS	16.0NS
5	30.0NS	22.0NS	20.0NS
6	88.0NS *	40.0NS	30.0NS
7	32.0NS	22.0NS	20.0NS
8	72.0NS *	32.0NS	24.0NS
9	46.0NS	26.0NS	24.0NS
10	32.0NS	22.0NS	20.0NS
11	52.0NS	28.0NS	22.0NS
12	14.0NS	14.0NS	14.0NS
13	44.0NS	26.0NS	22.0NS
14	46.0NS	28.0NS	24.0NS
15	16.0NS	16.0NS	16.0NS
16	84.0NS *	38.0NS	28.0NS
17	38.0NS	26.0NS	22.0NS
18	30.0NS	24.0NS	20.0NS
19	68.0NS	36.0NS	26.0NS
20	32.0NS	24.0NS	20.0NS
21	42.0NS	28.0NS	26.0NS
22	82.0NS *	36.0NS	30.0NS
23	42.0NS	26.0NS	24.0NS
25	30.0NS	24.0NS	22.0NS
26	40.0NS	26.0NS	22.0NS
27	36.0NS	24.0NS	22.0NS
28	58.0NS	30.0NS	24.0NS
30	26.0NS	20.0NS	18.0NS
31	38.0NS	26.0NS	22.0NS
33	38.0NS	24.0NS	22.0NS
34	94.0NS *	64.0NS	48.0NS
35	16.0NS	16.0NS	16.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	45.8NS	27.6NS	23.3NS
STD DEV	21.8NS	9.44NS	6.14NS
MEDIAN	40.0NS	26.0NS	22.0NS
MIN VALUE	14.0NS	14.0NS	14.0NS
MAX VALUE	94.0NS	64.0NS	48.0NS
NUMBER	27	27	27

POST 1000HR DATA

ADDRESS HOLD TIME (TAH) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	-4.00NS	-2.00NS	2.00NS
5	-4.00NS	0.00 S	4.00NS
6	-4.00NS	2.00NS	6.00NS
7	-4.00NS	0.00 S	4.00NS
8	-4.00NS	2.00NS	4.00NS
9	-4.00NS	2.00NS	4.00NS
10	-6.00NS	-2.00NS	2.00NS
11	-4.00NS	0.00 S	4.00NS
12	-4.00NS	0.00 S	2.00NS
13	-6.00NS	-2.00NS	2.00NS
14	-4.00NS	-2.00NS	4.00NS
15	-4.00NS	0.00 S	4.00NS
16	-4.00NS	0.00 S	4.00NS
17	-6.00NS	0.00 S	4.00NS
18	-6.00NS	-2.00NS	2.00NS
19	-4.00NS	0.00 S	4.00NS
20	-4.00NS	2.00NS	4.00NS
21	-6.00NS	0.00 S	6.00NS
22	-4.00NS	2.00NS	4.00NS
23	-4.00NS	2.00NS	4.00NS
25	-6.00NS	-2.00NS	4.00NS
26	-4.00NS	0.00 S	4.00NS
27	-4.00NS	2.00NS	6.00NS
28	-4.00NS	0.00 S	4.00NS
30	-4.00NS	0.00 S	2.00NS
31	-4.00NS	2.00NS	4.00NS
33	-6.00NS	0.00 S	4.00NS
34	-4.00NS	0.00 S	2.00NS
35	-4.00NS	0.00 S	2.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-4.52NS	222.PS	3.70NS
STD DEV	876.PS	1.37NS	1.18NS
MEDIAN	-4.00NS	0.00 S	4.00NS
MIN VALLE	-6.00NS	-2.00NS	2.00NS
MAX VALLE	-4.00NS	2.00NS	6.00NS
NUMBER	27	27	27

POST 1000HR DATA

CHIP ENABLE TO WRITE TIME (TWS) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	40.0NS	34.0NS	26.0NS
5	48.0NS	40.0NS	34.0NS
6	46.0NS	36.0NS	30.0NS
7	36.0NS	28.0NS	24.0NS
8	38.0NS	32.0NS	28.0NS
9	34.0NS	26.0NS	24.0NS
10	50.0NS	40.0NS	36.0NS
11	36.0NS	30.0NS	26.0NS
12	44.0NS	40.0NS	36.0NS
13	38.0NS	32.0NS	28.0NS
14	50.0NS	40.0NS	34.0NS
15	38.0NS	34.0NS	30.0NS
16	42.0NS	38.0NS	32.0NS
17	50.0NS	42.0NS	34.0NS
18	52.0NS	42.0NS	38.0NS
19	46.0NS	40.0NS	34.0NS
20	38.0NS	34.0NS	24.0NS
21	56.0NS	46.0NS	36.0NS
22	40.0NS	34.0NS	28.0NS
23	38.0NS	32.0NS	26.0NS
25	50.0NS	44.0NS	38.0NS
26	36.0NS	32.0NS	28.0NS
27	40.0NS	34.0NS	28.0NS
28	40.0NS	36.0NS	30.0NS
30	42.0NS	36.0NS	30.0NS
31	36.0NS	32.0NS	26.0NS
33	50.0NS	42.0NS	36.0NS
34	42.0NS	36.0NS	30.0NS
35	42.0NS	38.0NS	32.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	42.6NS	36.1NS	30.6NS
STD DEV	5.91NS	4.87NS	4.28NS
MEDIAN	42.0NS	36.0NS	30.0NS
MIN VALUE	34.0NS	26.0NS	24.0NS
MAX VALUE	56.0NS	46.0NS	38.0NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 1000HR DATA

READ CYCLE TIME (TRC) AT -40 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	115.NS	100.NS	100.NS
5	150.NS	115.NS	100.NS
6	200.NS	140.NS	115.NS
7	120.NS	105.NS	100.NS
8	165.NS	115.NS	105.NS
9	125.NS	105.NS	100.NS
10	140.NS	115.NS	100.NS
11	140.NS	105.NS	100.NS
12	100.NS	100.NS	100.NS
13	160.NS	115.NS	100.NS
14	155.NS	125.NS	105.NS
15	100.NS	100.NS	100.NS
16	165.NS	125.NS	105.NS
17	160.NS	125.NS	105.NS
18	145.NS	115.NS	100.NS
19	165.NS	120.NS	105.NS
20	135.NS	105.NS	100.NS
21	190.NS	140.NS	125.NS
22	165.NS	130.NS	105.NS
23	135.NS	110.NS	100.NS
25	155.NS	125.NS	115.NS
26	135.NS	105.NS	100.NS
27	150.NS	115.NS	100.NS
28	165.NS	125.NS	105.NS
30	130.NS	105.NS	100.NS
31	125.NS	105.NS	100.NS
33	160.NS	125.NS	105.NS
34	135.NS	110.NS	100.NS
35	100.NS	100.NS	100.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	145.NS	115.NS	104.NS
STD DEV	24.4NS	11.4NS	5.90NS
MEDIAN	145.NS	115.NS	100.NS
MIN VALUE	100.NS	100.NS	100.NS
MAX VALUE	200.NS	140.NS	125.NS
NUMBER	27	27	27

POST 1000HR DATA

WRITE CYCLE TIME (TWC) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	80.0NS	80.0NS	80.0NS
5	90.0NS	80.0NS	80.0NS
6	148.NS	92.0NS	80.0NS
7	80.0NS	80.0NS	80.0NS
8	123.NS	80.0NS	80.0NS
9	94.0NS	80.0NS	80.0NS
10	92.0NS	80.0NS	80.0NS
11	102.NS	80.0NS	80.0NS
12	80.0NS	80.0NS	80.0NS
13	96.0NS	80.0NS	80.0NS
14	110.NS	84.0NS	80.0NS
15	80.0NS	80.0NS	80.0NS
16	140.NS	86.0NS	80.0NS
17	102.NS	82.0NS	80.0NS
18	94.0NS	82.0NS	80.0NS
19	126.NS	90.0NS	80.0NS
20	86.0NS	80.0NS	80.0NS
21	108.NS	86.0NS	80.0NS
22	136.NS	84.0NS	80.0NS
23	90.0NS	80.0NS	80.0NS
25	96.0NS	82.0NS	80.0NS
26	90.0NS	80.0NS	80.0NS
27	90.0NS	80.0NS	80.0NS
28	112.NS	80.0NS	80.0NS
30	80.0NS	80.0NS	80.0NS
31	86.0NS	80.0NS	80.0NS
33	98.0NS	80.0NS	80.0NS
34	149.NS	112.NS	96.0NS
35	80.0NS	80.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	103.NS	83.0NS	80.6NS
STD DEV	20.9NS	6.52NS	3.02NS
MEDIAN	96.0NS	80.0NS	80.0NS
MIN VALLE	80.0NS	80.0NS	80.0NS
MAX VALLE	149.NS	112.NS	96.0NS
NUMBER	27	27	27

POST 1000HR DATA

CHIP ENABLE TIME (TEN) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	22.0NS	18.0NS	16.0NS
5	24.0NS	20.0NS	18.0NS
6	26.0NS	22.0NS	20.0NS
7	20.0NS	18.0NS	16.0NS
8	24.0NS	20.0NS	16.0NS
9	20.0NS	18.0NS	16.0NS
10	24.0NS	20.0NS	18.0NS
11	20.0NS	16.0NS	14.0NS
12	20.0NS	16.0NS	14.0NS
13	24.0NS	20.0NS	18.0NS
14	28.0NS	24.0NS	20.0NS
15	20.0NS	16.0NS	14.0NS
16	22.0NS	20.0NS	16.0NS
17	26.0NS	22.0NS	20.0NS
18	24.0NS	20.0NS	18.0NS
19	22.0NS	18.0NS	16.0NS
20	22.0NS	18.0NS	16.0NS
21	32.0NS	28.0NS	24.0NS
22	26.0NS	22.0NS	20.0NS
23	22.0NS	18.0NS	16.0NS
25	26.0NS	22.0NS	20.0NS
26	20.0NS	18.0NS	16.0NS
27	24.0NS	20.0NS	18.0NS
28	24.0NS	20.0NS	18.0NS
30	22.0NS	18.0NS	16.0NS
31	22.0NS	18.0NS	16.0NS
33	26.0NS	22.0NS	18.0NS
34	22.0NS	18.0NS	16.0NS
35	20.0NS	18.0NS	16.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	23.3NS	19.6NS	17.3NS
STD DEV	2.89NS	2.61NS	2.25NS
MEDIAN	22.0NS	20.0NS	16.0NS
MIN VALUE	20.0NS	16.0NS	14.0NS
MAX VALUE	32.0NS	28.0NS	24.0NS
NUMBER	27	27	27

POST 1000HR DATA

OUTPUT VOLTAGE LOW (VOL) AT -40 C

SERIAL NO.	
4	95.0MV
5	115.MV
6	130.MV
7	110.MV
8	115.MV
9	100.MV
10	105.MV
11	100.MV
12	95.0MV
13	115.MV
14	135.MV
15	105.MV
16	110.MV
17	125.MV
18	105.MV
19	110.MV
20	110.MV
21	155.MV
22	120.MV
23	105.MV
25	120.MV
26	100.MV
27	120.MV
28	120.MV
30	105.MV
31	100.MV
33	115.MV
34	110.MV
35	100.MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	113.MV
STD DEV	12.8MV
MEDIAN	110.MV
MIN VALUE	95.0MV
MAX VALUE	155.MV
NUMBER	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 1000HR DATA

OUTPUT VOLTAGE HIGH (VOH1) AT -40 C

SERIAL NO.	
4	4.42 V
5	4.41 V
6	4.40 V
7	4.42 V
8	4.41 V
9	4.42 V
10	4.41 V
11	4.42 V
12	4.42 V
13	4.41 V
14	4.39 V
15	4.41 V
16	4.41 V
17	4.40 V
18	4.41 V
19	4.41 V
20	4.42 V
21	4.39 V
22	4.41 V
23	4.42 V
25	4.40 V
26	4.42 V
27	4.41 V
28	4.41 V
30	4.42 V
31	4.42 V
33	4.40 V
34	4.41 V
35	4.41 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.60 V
MEAN	4.41 V
STD DEV	8.96MV
MEDIAN	4.41 V
MIN VALUE	4.39 V
MAX VALUE	4.42 V
NUMBER	27

POST 1000HR DATA

OUTPUT VOLTAGE HIGH (VOH2) AT -40 C

SERIAL NO.	
4	4.92 V
5	4.91 V
6	4.91 V
7	4.91 V
8	4.92 V
9	4.92 V
10	4.92 V
11	4.92 V
12	4.92 V
13	4.91 V
14	4.90 V
15	4.92 V
16	4.91 V
17	4.91 V
18	4.92 V
19	4.91 V
20	4.92 V
21	4.90 V
22	4.91 V
23	4.92 V
25	4.90 V
26	4.92 V
27	4.92 V
28	4.91 V
30	4.92 V
31	4.92 V
33	4.91 V
34	4.92 V
35	4.91 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.92 V
STD DEV	7.24MV
MEDIAN	4.92 V
MIN VALUE	4.90 V
MAX VALUE	4.92 V
NUMBER	27

POST 1000HR DATA

AVERAGE INPUT LOW CURRENT (IIL) AT -40 C

SERIAL NO.	
4	846.PA
5	769.PA
6	654.PA
7	769.PA
8	769.PA
9	769.PA
10	923.PA
11	846.PA
12	885.PA
13	846.PA
14	808.PA
15	769.PA
16	846.PA
17	846.PA
18	846.PA
19	769.PA
20	962.PA
21	731.PA
22	769.PA
23	500.PA
25	846.PA
26	769.PA
27	769.PA
28	846.PA
30	692.PA
31	846.PA
33	885.PA
34	769.PA
35	846.PA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	799.PA
STD DEV	88.4PA
MEDIAN	808.PA
MIN VALUE	500.PA
MAX VALUE	962.PA
NUMBER	27

POST 1000HR DATA

WORST CASE INPUT LOW CURRENT (IIL) AT -40 C

SERIAL NO.	
4	1.50NA
5	1.50NA
6	1.50NA
7	1.50NA
8	1.50NA
9	1.50NA
10	1.50NA
11	1.50NA
12	1.50NA
13	1.50NA
14	1.50NA
15	1.50NA
16	1.50NA
17	1.50NA
18	1.50NA
19	1.50NA
20	1.50NA
21	1.50NA
22	1.50NA
23	-3.00NA
25	1.50NA
26	1.50NA
27	1.50NA
28	1.50NA
30	1.00NA
31	1.50NA
33	1.50NA
34	1.50NA
35	1.50NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	1.31NA
STD DEV	851.PA
MEDIAN	1.50NA
MIN VALUE	-3.00NA
MAX VALUE	1.50NA
NUMBER	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 1000HR DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT -40 C

SERIAL NO.	
4	1.38NA
5	1.38NA
6	1.42NA
7	1.27NA
8	1.42NA
9	1.27NA
10	1.27NA
11	1.42NA
12	1.31NA
13	1.38NA
14	1.38NA
15	1.42NA
16	1.15NA
17	1.42NA
18	1.42NA
19	1.19NA
20	1.15NA
21	1.42NA
22	1.38NA
23	6.96NA
25	1.19NA
26	1.27NA
27	1.19NA
28	1.38NA
30	1.73NA
31	1.31NA
33	1.27NA
34	1.23NA
35	1.23NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	1.54NA
STD DEV	1.07NA
MEDIAN	1.31NA
MIN VALUE	1.15NA
MAX VALUE	6.96NA
NUMBER	27

POST 1000HR DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT -40 C

SERIAL NO.	
4	2.00NA
5	2.00NA
6	2.00NA
7	2.00NA
8	2.00NA
9	2.00NA
10	2.00NA
11	2.00NA
12	2.00NA
13	2.50NA
14	2.50NA
15	2.00NA
16	2.00NA
17	2.00NA
18	2.00NA
19	2.00NA
20	2.00NA
21	2.00NA
22	2.00NA
23	76.5NA
25	2.00NA
26	2.00NA
27	2.00NA
28	2.00NA
30	4.50NA
31	2.50NA
33	2.00NA
34	2.00NA
35	2.00NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	4.91NA
STD DEV	14.0NA
MEDIAN	2.00NA
MIN VALUE	2.00NA
MAX VALUE	76.5NA
NUMBER	27

POST 1000HR DATA

SUPPLY CURRENT (ICC180) AT -40 C

SERIAL NO.	
4	1.04UA
5	301.NA
6	8.66UA
7	13.0NA
8	6.76UA
9	1.05UA
10	120.NA
11	11.5NA
12	29.0NA
13	22.5NA
14	415.NA
15	62.5NA
16	27.0NA
17	9.50NA
18	42.0NA
19	26.0NA
20	16.5NA
21	22.5NA
22	83.0NA
23	2.03UA
25	91.5NA
26	12.0NA
27	170.NA
28	135.NA
30	7.96UA
31	56.5NA
33	3.57UA
34	144.UA
35	23.5NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	6.50UA
STD DEV	27.1UA
MEDIAN	62.5NA
MIN VALUE	9.50NA
MAX VALUE	144.UA
NUMBER	27

POST 1000HR DATA

SUPPLY CURRENT (ICC1B1) AT -40 C

SERIAL NO.	
4	60.8UA
5	319.NA
6	15.0UA
7	19.4UA
8	6.83UA
9	11.3UA
10	124.NA
11	18.5NA
12	1.28UA
13	34.5NA
14	88.5NA
15	118.NA
16	31.0NA
17	13.5NA
18	48.0NA
19	27.5NA
20	23.5NA
21	28.5NA
22	84.5NA
23	10.2UA
25	4.61UA
26	43.5NA
27	171.NA
28	42.0NA
30	8.40UA
31	11.2UA
33	1.45MA *
34	145.UA
35	85.5NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	62.4UA
STD DEV	273.UA
MEDIAN	118.NA
MIN VALUE	13.5NA
MAX VALUE	1.45MA
NUMBER	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 1000HR DATA

SUPPLY CURRENT (ICC2B0) AT -40 C

SERIAL NO.	
4	1.04UA
5	126.UA
6	8.82UA
7	12.0NA
8	6.76UA
9	1.17UA
10	120.NA
11	16.5NA
12	542.NA
13	2.54UA
14	416.NA
15	92.0NA
16	28.5NA
17	5.12UA
18	41.0NA
19	26.0NA
20	19.5NA
21	12.0NA
22	472.UA
23	830.NA
25	217.NA
26	58.0NA
27	572.NA
28	133.NA
30	259.NA
31	14.5NA
33	43.7UA
34	182.UA
35	66.0NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	26.9UA
STD DEV	94.1UA
MEDIAN	217.NA
MIN VALUE	12.0NA
MAX VALUE	472.UA
NUMBER	27

POST 1000HR DATA

SUPPLY CURRENT (ICC2B1) AT -40 C

SERIAL NO.	
4	69.6UA
5	124.UA
6	16.6UA
7	20.9UA
8	6.89UA
9	11.9UA
10	123.NA
11	14.0NA
12	69.0NA
13	2.53UA
14	92.0NA
15	64.5NA
16	28.0NA
17	5.15UA
18	41.0NA
19	27.0NA
20	17.5NA
21	10.0NA
22	472.UA
23	9.05UA
25	4.45UA
26	44.0NA
27	569.NA
28	31.5NA
30	272.NA
31	11.1UA
33	1.51MA *
34	183.UA
35	23.0NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	83.3UA
STD DEV	294.UA
MEDIAN	272.NA
MIN VALUE	10.0NA
MAX VALUE	1.51MA
NUMBER	27

POST 1000HR DATA

OUTPUT LEAKAGE CURRENT (IOL) AT -40 C

SERIAL NO.	
4	25.5NA
5	7.00NA
6	5.50NA
7	2.00NA
8	4.50NA
9	7.50NA
10	6.50NA
11	2.00NA
12	7.50NA
13	4.50NA
14	2.50NA
15	7.00NA
16	5.00NA
17	2.00NA
18	2.00NA
19	4.00NA
20	4.50NA
21	3.00NA
22	2.00NA
23	2.00NA
25	6.50NA
26	2.50NA
27	4.00NA
28	1.50NA
30	16.0NA
31	4.00NA
33	3.50NA
34	12.0NA
35	2.50NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	4.69NA
STD DEV	3.24NA
MEDIAN	4.00NA
MIN VALUE	1.50NA
MAX VALUE	16.0NA
NUMBER	27

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POST 1000HR DATA

ADDRESS ACCESS TIME (TAA) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	140.NS	120.NS	110.NS
5	155.NS	135.NS	120.NS
6	190.NS	155.NS	135.NS
7	165.NS	140.NS	130.NS
8	165.NS	135.NS	120.NS
9	155.NS	130.NS	120.NS
10	160.NS	135.NS	120.NS
11	150.NS	125.NS	110.NS
12	105.NS	95.0NS	95.0NS
13	160.NS	130.NS	115.NS
14	175.NS	145.NS	130.NS
15	110.NS	100.NS	95.0NS
16	215.NS	165.NS	145.NS
17	165.NS	140.NS	125.NS
18	155.NS	130.NS	120.NS
19	195.NS	155.NS	135.NS
20	145.NS	125.NS	110.NS
21	225.NS	185.NS	165.NS
22	175.NS	150.NS	135.NS
23	160.NS	135.NS	120.NS
25	185.NS	155.NS	140.NS
26	150.NS	125.NS	110.NS
27	165.NS	135.NS	125.NS
28	175.NS	145.NS	130.NS
30	150.NS	130.NS	115.NS
31	145.NS	125.NS	115.NS
33	210.NS	175.NS	160.NS
34	220.NS	185.NS	165.NS
35	115.NS	105.NS	100.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	166.NS	139.NS	125.NS
STD DEV	29.9NS	21.9NS	18.2NS
MEDIAN	165.NS	135.NS	120.NS
MIN VALUE	105.NS	95.0NS	95.0NS
MAX VALUE	225.NS	185.NS	165.NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 1000HR DATA

DATA SETUP TIME (TDS) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	20.0NS	16.0NS	16.0NS
5	20.0NS	16.0NS	14.0NS
6	18.0NS	16.0NS	16.0NS
7	10.0NS	12.0NS	14.0NS
8	16.0NS	14.0NS	14.0NS
9	12.0NS	12.0NS	14.0NS
10	20.0NS	16.0NS	16.0NS
11	12.0NS	12.0NS	14.0NS
12	14.0NS	12.0NS	12.0NS
13	18.0NS	14.0NS	16.0NS
14	20.0NS	16.0NS	16.0NS
15	10.0NS	10.0NS	10.0NS
16	16.0NS	18.0NS	22.0NS
17	20.0NS	18.0NS	16.0NS
18	22.0NS	18.0NS	16.0NS
19	16.0NS	18.0NS	20.0NS
20	14.0NS	14.0NS	14.0NS
21	22.0NS	20.0NS	20.0NS
22	14.0NS	12.0NS	14.0NS
23	12.0NS	12.0NS	16.0NS
25	28.0NS	24.0NS	24.0NS
26	14.0NS	12.0NS	14.0NS
27	16.0NS	14.0NS	14.0NS
28	18.0NS	16.0NS	16.0NS
30	16.0NS	16.0NS	16.0NS
31	12.0NS	12.0NS	14.0NS
33	20.0NS	16.0NS	16.0NS
34	16.0NS	16.0NS	16.0NS
35	14.0NS	10.0NS	12.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	16.3NS	14.8NS	15.6NS
STD DEV	4.06NS	3.19NS	2.93NS
MEDIAN	16.0NS	14.0NS	16.0NS
MIN VALUE	10.0NS	10.0NS	10.0NS
MAX VALUE	28.0NS	24.0NS	24.0NS
NUMBER	27	27	27

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POST 1000HR DATA

DATA HOLD TIME (TDH) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	14.0NS	16.0NS	20.0NS
5	16.0NS	20.0NS	22.0NS
6	20.0NS	24.0NS	28.0NS
7	20.0NS	22.0NS	26.0NS
8	18.0NS	22.0NS	26.0NS
9	18.0NS	22.0NS	26.0NS
10	16.0NS	18.0NS	22.0NS
11	18.0NS	20.0NS	24.0NS
12	14.0NS	18.0NS	20.0NS
13	16.0NS	18.0NS	22.0NS
14	16.0NS	20.0NS	22.0NS
15	18.0NS	20.0NS	22.0NS
16	20.0NS	24.0NS	28.0NS
17	18.0NS	20.0NS	22.0NS
18	18.0NS	20.0NS	22.0NS
19	20.0NS	24.0NS	28.0NS
20	18.0NS	20.0NS	24.0NS
21	20.0NS	22.0NS	28.0NS
22	18.0NS	22.0NS	26.0NS
23	18.0NS	22.0NS	26.0NS
25	16.0NS	20.0NS	24.0NS
26	18.0NS	20.0NS	22.0NS
27	18.0NS	22.0NS	26.0NS
28	18.0NS	20.0NS	26.0NS
30	16.0NS	18.0NS	22.0NS
31	18.0NS	22.0NS	26.0NS
33	16.0NS	18.0NS	22.0NS
34	16.0NS	18.0NS	22.0NS
35	16.0NS	18.0NS	20.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	17.6NS	20.5NS	24.1NS
STD DEV	1.54NS	1.93NS	2.49NS
MEDIAN	18.0NS	20.0NS	24.0NS
MIN VALLE	14.0NS	18.0NS	20.0NS
MAX VALLE	20.0NS	24.0NS	28.0NS
NUMBER	27	27	27

POST 1000HR DATA

WRITE PULSE WIDTH (TWP) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	58.0NS	54.0NS	48.0NS
5	62.0NS	54.0NS	48.0NS
6	60.0NS	52.0NS	46.0NS
7	48.0NS	46.0NS	42.0NS
8	46.0NS	40.0NS	38.0NS
9	46.0NS	40.0NS	38.0NS
10	60.0NS	54.0NS	48.0NS
11	46.0NS	40.0NS	38.0NS
12	54.0NS	48.0NS	46.0NS
13	48.0NS	42.0NS	38.0NS
14	54.0NS	48.0NS	44.0NS
15	46.0NS	40.0NS	38.0NS
16	54.0NS	48.0NS	46.0NS
17	54.0NS	48.0NS	46.0NS
18	62.0NS	54.0NS	50.0NS
19	56.0NS	50.0NS	46.0NS
20	46.0NS	42.0NS	38.0NS
21	64.0NS	56.0NS	52.0NS
22	50.0NS	46.0NS	40.0NS
23	48.0NS	46.0NS	40.0NS
25	70.0NS	62.0NS	54.0NS
26	46.0NS	42.0NS	38.0NS
27	48.0NS	44.0NS	40.0NS
28	52.0NS	46.0NS	42.0NS
30	56.0NS	50.0NS	46.0NS
31	46.0NS	42.0NS	38.0NS
33	62.0NS	54.0NS	48.0NS
34	60.0NS	54.0NS	48.0NS
35	54.0NS	48.0NS	46.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	53.2NS	47.5NS	43.5NS
STD DEV	6.65NS	5.62NS	4.76NS
MEDIAN	54.0NS	48.0NS	44.0NS
MIN VALUE	46.0NS	40.0NS	38.0NS
MAX VALUE	70.0NS	62.0NS	54.0NS
NUMBER	27	27	27

POST 1000HR DATA

ADDRESS SETUP TIME (TAS) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	18.0NS	18.0NS	20.0NS
5	24.0NS	24.0NS	24.0NS
6	32.0NS	26.0NS	26.0NS
7	24.0NS	22.0NS	24.0NS
8	26.0NS	22.0NS	22.0NS
9	24.0NS	22.0NS	24.0NS
10	24.0NS	22.0NS	24.0NS
11	24.0NS	22.0NS	22.0NS
12	18.0NS	18.0NS	18.0NS
13	24.0NS	22.0NS	22.0NS
14	24.0NS	24.0NS	24.0NS
15	18.0NS	18.0NS	20.0NS
16	40.0NS	30.0NS	28.0NS
17	24.0NS	24.0NS	24.0NS
18	24.0NS	24.0NS	24.0NS
19	34.0NS	28.0NS	26.0NS
20	22.0NS	22.0NS	24.0NS
21	28.0NS	28.0NS	30.0NS
22	28.0NS	24.0NS	26.0NS
23	24.0NS	22.0NS	24.0NS
25	26.0NS	26.0NS	26.0NS
26	22.0NS	20.0NS	22.0NS
27	24.0NS	22.0NS	24.0NS
28	24.0NS	22.0NS	22.0NS
30	22.0NS	22.0NS	22.0NS
31	22.0NS	22.0NS	24.0NS
33	24.0NS	24.0NS	24.0NS
34	70.0NS	66.0NS	62.0NS
35	20.0NS	20.0NS	20.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	26.5NS	24.6NS	25.1NS
STD DEV	9.64NS	8.57NS	7.63NS
MEDIAN	24.0NS	22.0NS	24.0NS
MIN VALUE	18.0NS	18.0NS	18.0NS
MAX VALUE	70.0NS	66.0NS	62.0NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 1000HR DATA

ADDRESS HOLD TIME (TAH) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	-6.00NS	-4.00NS	2.00NS
5	-6.00NS	-2.00NS	2.00NS
6	-4.00NS	2.00NS	6.00NS
7	-4.00NS	0.00 S	4.00NS
8	-4.00NS	0.00 S	4.00NS
9	-4.00NS	2.00NS	6.00NS
10	-8.00NS	-4.00NS	2.00NS
11	-4.00NS	0.00 S	4.00NS
12	-4.00NS	-2.00NS	0.00 S
13	-6.00NS	-4.00NS	2.00NS
14	-6.00NS	-2.00NS	2.00NS
15	-4.00NS	0.00 S	2.00NS
16	-6.00NS	-2.00NS	4.00NS
17	-6.00NS	-2.00NS	4.00NS
18	-8.00NS	-4.00NS	0.00 S
19	-6.00NS	-2.00NS	4.00NS
20	-4.00NS	0.00 S	4.00NS
21	-8.00NS	-2.00NS	4.00NS
22	-4.00NS	0.00 S	4.00NS
23	-4.00NS	2.00NS	6.00NS
25	-8.00NS	-2.00NS	2.00NS
26	-4.00NS	0.00 S	4.00NS
27	-4.00NS	0.00 S	4.00NS
28	-6.00NS	0.00 S	4.00NS
30	-6.00NS	-2.00NS	2.00NS
31	-2.00NS	2.00NS	6.00NS
33	-8.00NS	-4.00NS	2.00NS
34	-8.00NS	-4.00NS	2.00NS
35	-4.00NS	-2.00NS	2.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-5.33NS	-1.11NS	3.33NS
STD DEV	1.72NS	1.91NS	1.63NS
MEDIAN	-4.00NS	-2.00NS	4.00NS
MIN VALUE	-8.00NS	-4.00NS	0.00 S
MAX VALUE	-2.00NS	2.00NS	6.00NS
NUMBER	27	27	27

POST 1000HR DATA

CHIP ENABLE TO WRITE TIME (TWS) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	56.0NS	48.0NS	42.0NS
5	58.0NS	50.0NS	42.0NS
6	56.0NS	48.0NS	40.0NS
7	44.0NS	38.0NS	32.0NS
8	40.0NS	34.0NS	30.0NS
9	40.0NS	34.0NS	30.0NS
10	56.0NS	48.0NS	42.0NS
11	42.0NS	36.0NS	30.0NS
12	50.0NS	42.0NS	40.0NS
13	44.0NS	38.0NS	32.0NS
14	52.0NS	44.0NS	38.0NS
15	40.0NS	36.0NS	32.0NS
16	48.0NS	42.0NS	34.0NS
17	54.0NS	44.0NS	38.0NS
18	58.0NS	52.0NS	46.0NS
19	52.0NS	46.0NS	38.0NS
20	42.0NS	36.0NS	32.0NS
21	66.0NS	52.0NS	44.0NS
22	46.0NS	40.0NS	34.0NS
23	46.0NS	40.0NS	34.0NS
25	66.0NS	58.0NS	50.0NS
26	42.0NS	38.0NS	32.0NS
27	48.0NS	38.0NS	32.0NS
28	48.0NS	42.0NS	36.0NS
30	52.0NS	46.0NS	40.0NS
31	42.0NS	36.0NS	32.0NS
33	58.0NS	50.0NS	44.0NS
34	56.0NS	48.0NS	42.0NS
35	50.0NS	44.0NS	38.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	49.6NS	42.6NS	36.7NS
STD DEV	7.31NS	6.11NS	5.37NS
MEDIAN	48.0NS	42.0NS	36.0NS
MIN VALUE	40.0NS	34.0NS	30.0NS
MAX VALUE	66.0NS	58.0NS	50.0NS
NUMBER	27	27	27

POST 1000HR DATA

READ CYCLE TIME (TRC) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	150.NS	135.NS	125.NS
5	160.NS	140.NS	130.NS
6	190.NS	155.NS	135.NS
7	160.NS	140.NS	125.NS
8	170.NS	140.NS	125.NS
9	155.NS	130.NS	120.NS
10	165.NS	140.NS	130.NS
11	150.NS	130.NS	115.NS
12	120.NS	115.NS	105.NS
13	160.NS	140.NS	125.NS
14	170.NS	145.NS	135.NS
15	120.NS	110.NS	105.NS
16	205.NS	160.NS	140.NS
17	165.NS	145.NS	130.NS
18	160.NS	140.NS	130.NS
19	195.NS	155.NS	135.NS
20	150.NS	130.NS	115.NS
21	210.NS	180.NS	165.NS
22	185.NS	155.NS	135.NS
23	160.NS	135.NS	125.NS
25	185.NS	165.NS	150.NS
26	155.NS	130.NS	115.NS
27	165.NS	140.NS	130.NS
28	175.NS	145.NS	130.NS
30	155.NS	135.NS	125.NS
31	155.NS	130.NS	120.NS
33	175.NS	150.NS	135.NS
34	165.NS	145.NS	130.NS
35	130.NS	120.NS	115.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	165.NS	141.NS	128.NS
STD DEV	21.5NS	14.8NS	12.4NS
MEDIAN	165.NS	140.NS	130.NS
MIN VALUE	120.NS	110.NS	105.NS
MAX VALUE	210.NS	180.NS	165.NS
NUMBER	27	27	27

POST 1000HR DATA

WRITE CYCLE TIME (TWC) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	86.0NS	82.0NS	80.0NS
5	96.0NS	88.0NS	82.0NS
6	102.NS	88.0NS	82.0NS
7	82.0NS	80.0NS	80.0NS
8	82.0NS	80.0NS	80.0NS
9	80.0NS	80.0NS	80.0NS
10	94.0NS	86.0NS	82.0NS
11	80.0NS	80.0NS	80.0NS
12	82.0NS	80.0NS	80.0NS
13	82.0NS	80.0NS	80.0NS
14	88.0NS	82.0NS	80.0NS
15	80.0NS	80.0NS	80.0NS
16	104.NS	88.0NS	84.0NS
17	88.0NS	82.0NS	80.0NS
18	96.0NS	88.0NS	84.0NS
19	100.NS	88.0NS	82.0NS
20	80.0NS	80.0NS	80.0NS
21	102.NS	94.0NS	92.0NS
22	88.0NS	80.0NS	80.0NS
23	82.0NS	80.0NS	80.0NS
25	106.NS	98.0NS	90.0NS
26	80.0NS	80.0NS	80.0NS
27	82.0NS	80.0NS	80.0NS
28	86.0NS	80.0NS	80.0NS
30	88.0NS	82.0NS	80.0NS
31	80.0NS	80.0NS	80.0NS
33	96.0NS	88.0NS	82.0NS
34	140.NS	129.NS	119.NS
35	84.0NS	80.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	90.1NS	84.9NS	82.9NS
STD DEV	12.9NS	9.88NS	7.68NS
MEDIAN	86.0NS	80.0NS	80.0NS
MIN VALUE	80.0NS	80.0NS	80.0NS
MAX VALUE	140.NS	129.NS	119.NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 1000HR DATA

CHIP ENABLE TIME (TEN) AT 85 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	28.0NS	24.0NS	20.0NS
5	30.0NS	24.0NS	22.0NS
6	30.0NS	26.0NS	24.0NS
7	26.0NS	24.0NS	22.0NS
8	26.0NS	22.0NS	20.0NS
9	24.0NS	22.0NS	20.0NS
10	28.0NS	24.0NS	22.0NS
11	24.0NS	20.0NS	18.0NS
12	24.0NS	20.0NS	18.0NS
13	28.0NS	24.0NS	22.0NS
14	32.0NS	28.0NS	24.0NS
15	24.0NS	20.0NS	18.0NS
16	28.0NS	24.0NS	22.0NS
17	32.0NS	26.0NS	24.0NS
18	30.0NS	24.0NS	22.0NS
19	28.0NS	24.0NS	22.0NS
20	26.0NS	22.0NS	20.0NS
21	40.0NS	36.0NS	32.0NS
22	30.0NS	26.0NS	24.0NS
23	26.0NS	24.0NS	20.0NS
25	34.0NS	28.0NS	26.0NS
26	26.0NS	22.0NS	20.0NS
27	30.0NS	26.0NS	22.0NS
28	30.0NS	26.0NS	22.0NS
30	28.0NS	24.0NS	22.0NS
31	26.0NS	22.0NS	20.0NS
33	30.0NS	26.0NS	24.0NS
34	30.0NS	24.0NS	22.0NS
35	26.0NS	22.0NS	20.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	28.4NS	24.3NS	21.9NS
STD DEV	3.49NS	3.16NS	2.80NS
MEDIAN	28.0NS	24.0NS	22.0NS
MIN VALUE	24.0NS	20.0NS	18.0NS
MAX VALUE	40.0NS	36.0NS	32.0NS
NUMBER	27	27	27

POST 1000HR DATA

OUTPUT VOLTAGE LOW (VOL) AT 85 C

SERIAL NO.	
4	135.MV
5	155.MV
6	175.MV
7	160.MV
8	160.MV
9	135.MV
10	155.MV
11	145.MV
12	130.MV
13	160.MV
14	180.MV
15	145.MV
16	160.MV
17	165.MV
18	150.MV
19	155.MV
20	150.MV
21	215.MV
22	160.MV
23	145.MV
25	170.MV
26	145.MV
27	165.MV
28	170.MV
30	150.MV
31	135.MV
33	165.MV
34	155.MV
35	140.MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	157.MV
STD DEV	16.7MV
MEDIAN	155.MV
MIN VALUE	130.MV
MAX VALUE	215.MV
NUMBER	27

POST 1000HR DATA

OUTPUT VOLTAGE HIGH (VOH1) AT 85 C

SERIAL NO.	
4	4.36 V
5	4.36 V
6	4.34 V
7	4.36 V
8	4.36 V
9	4.38 V
10	4.36 V
11	4.37 V
12	4.36 V
13	4.36 V
14	4.34 V
15	4.36 V
16	4.36 V
17	4.34 V
18	4.35 V
19	4.36 V
20	4.37 V
21	4.32 V
22	4.36 V
23	4.37 V
25	4.33 V
26	4.37 V
27	4.36 V
28	4.36 V
30	4.36 V
31	4.38 V
33	4.34 V
34	4.35 V
35	4.36 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.60 V
MEAN	4.36 V
STD DEV	14.0MV
MEDIAN	4.36 V
MIN VALUE	4.32 V
MAX VALUE	4.38 V
NUMBER	27

POST 1000HR DATA

OUTPUT VOLTAGE HIGH (VOH2) AT 85 C

SERIAL NO.	
4	4.87 V
5	4.86 V
6	4.86 V
7	4.85 V
8	4.86 V
9	4.88 V
10	4.86 V
11	4.86 V
12	4.86 V
13	4.86 V
14	4.84 V
15	4.86 V
16	4.86 V
17	4.84 V
18	4.86 V
19	4.86 V
20	4.87 V
21	4.83 V
22	4.86 V
23	4.87 V
25	4.84 V
26	4.88 V
27	4.86 V
28	4.86 V
30	4.86 V
31	4.87 V
33	4.84 V
34	4.86 V
35	4.86 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.86 V
STD DEV	10.9MV
MEDIAN	4.86 V
MIN VALUE	4.83 V
MAX VALUE	4.88 V
NUMBER	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 1000HR DATA

AVERAGE INPUT LOW CURRENT (IIL) AT 85 C

SERIAL NO.	
4	-38.4NA
5	-62.7NA
6	-25.2NA
7	-107.NA
8	-36.7NA
9	-136.NA
10	-34.8NA
11	-36.5NA
12	-43.1NA
13	-29.2NA
14	-36.3NA
15	-96.7NA
16	-17.6NA
17	-28.0NA
18	-40.6NA
19	-37.0NA
20	-19.7NA
21	-22.2NA
22	-78.3NA
23	-94.3NA
25	-16.9NA
26	-44.5NA
27	-27.2NA
28	-54.1NA
30	-29.3NA
31	-109.NA
33	-43.3NA
34	-19.7NA
35	-80.9NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-49.8NA
STD DEV	32.5NA
MEDIAN	-36.7NA
MIN VALUE	-136.NA
MAX VALUE	-16.9NA
NUMBER	27

POST 1000HR DATA

WORST CASE INPUT LOW CURRENT (IIL) AT 85 C

SERIAL NO.	
4	-56.5NA
5	-109.NA
6	-163.NA
7	-877.NA
8	-142.NA
9	-948.NA
10	-118.NA
11	-193.NA
12	-175.NA
13	-96.5NA
14	-213.NA
15	-869.NA
16	-130.NA
17	-113.NA
18	-87.5NA
19	-267.NA
20	-106.NA
21	-69.5NA
22	-174.NA
23	-666.NA
25	-42.0NA
26	-352.NA
27	-204.NA
28	-431.NA
30	-77.5NA
31	-628.NA
33	-142.NA
34	93.2NA
35	-592.NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-288.NA
STD DEV	278.NA
MEDIAN	-174.NA
MIN VALUE	-948.NA
MAX VALUE	93.2NA
NUMBER	27

POST 1000HR DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT 85 C

SERIAL NO.		
4	134.NA	
5	123.NA	
6	725.NA	*
7	306.NA	
8	797.NA	*
9	234.NA	
10	708.NA	*
11	721.NA	*
12	881.NA	*
13	1.04UA	*
14	212.NA	
15	355.NA	
16	605.NA	*
17	423.NA	
18	526.NA	*
19	764.NA	*
20	183.NA	
21	631.NA	*
22	152.NA	
23	678.NA	*
25	527.NA	*
26	404.NA	
27	725.NA	*
28	580.NA	*
30	830.NA	*
31	623.NA	*
33	191.NA	
34	416.NA	
35	606.NA	*

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	550.NA
STD DEV	234.NA
MEDIAN	605.NA
MIN VALUE	152.NA
MAX VALUE	1.04UA
NUMBER	27

POST 1000HR DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT 85 C

SERIAL NO.	
4	535.NA *
5	537.NA *
6	3.48UA *
7	1.41UA *
8	4.45UA *
9	1.04UA *
10	3.41UA *
11	3.26UA *
12	5.22UA *
13	5.60UA *
14	1.22UA *
15	2.24UA *
16	3.46UA *
17	1.28UA *
18	2.58UA *
19	2.86UA *
20	1.16UA *
21	4.46UA *
22	604.NA *
23	2.32UA *
25	2.04UA *
26	1.63UA *
27	3.49UA *
28	1.92UA *
30	3.12UA *
31	2.93UA *
33	734.NA *
34	1.77UA *
35	2.51UA *

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	2.60UA
STD DEV	1.31UA
MEDIAN	2.51UA
MIN VALUE	604.NA
MAX VALUE	5.60UA
NUMBER	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 1000HR DATA

SUPPLY CURRENT (ICC1B0) AT 85 C

SERIAL NO.	
4	220.UA
5	46.5UA
6	47.7UA
7	61.8UA
8	43.8UA
9	79.4UA
10	28.1UA
11	27.0UA
12	40.1UA
13	26.9UA
14	18.6UA
15	65.3UA
16	17.8UA
17	16.1UA
18	24.4UA
19	19.5UA
20	15.3UA
21	13.7UA
22	52.7UA
23	49.9UA
25	53.7UA
26	30.8UA
27	36.6UA
28	27.7UA
30	89.4UA
31	58.1UA
33	32.7UA
34	273.UA
35	49.4UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	48.1UA
STD DEV	48.2UA
MEDIAN	36.6UA
MIN VALUE	13.7UA
MAX VALUE	273.UA
NUMBER	27

POST 1000HR DATA

SUPPLY CURRENT (ICC1B1) AT 85 C

SERIAL NO.	
4	404.UA
5	56.4UA
6	59.2UA
7	79.2UA
8	43.3UA
9	85.9UA
10	30.1UA
11	29.7UA
12	66.9UA
13	33.3UA
14	20.9UA
15	61.4UA
16	17.6UA
17	17.4UA
18	28.6UA
19	18.2UA
20	18.3UA
21	15.2UA
22	45.5UA
23	55.1UA
25	99.5UA
26	33.3UA
27	36.3UA
28	27.6UA
30	138.UA
31	73.7UA
33	1.35MA *
34	361.UA
35	51.2UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	107.UA
STD DEV	252.UA
MEDIAN	43.3UA
MIN VALUE	15.2UA
MAX VALUE	1.35MA
NUMBER	27

POST 1000HR DATA

SUPPLY CURRENT (ICC2B0) AT 85 C

SERIAL NO.	
4	218.UA
5	209.UA
6	50.4UA
7	71.1UA
8	46.2UA
9	90.8UA
10	29.4UA
11	29.1UA
12	52.4UA
13	33.7UA
14	20.4UA
15	77.9UA
16	20.1UA
17	24.9UA
18	25.2UA
19	22.1UA
20	17.0UA
21	14.3UA
22	522.UA
23	55.3UA
25	59.4UA
26	36.3UA
27	24.7UA
28	31.7UA
30	85.0UA
31	66.9UA
33	76.3UA
34	309.UA
35	58.9UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	72.2UA
STD DEV	104.UA
MEDIAN	46.2UA
MIN VALUE	14.3UA
MAX VALUE	522.UA
NUMBER	27

POST 1000HR DATA

SUPPLY CURRENT (ICC2B1) AT 85 C

SERIAL NO.	
4	315.UA
5	202.UA
6	52.8UA
7	73.2UA
8	40.5UA
9	76.0UA
10	23.1UA
11	20.7UA
12	36.0UA
13	28.0UA
14	16.3UA
15	46.0UA
16	13.3UA
17	20.2UA
18	20.5UA
19	14.2UA
20	12.7UA
21	10.4UA
22	499.UA
23	45.3UA
25	70.1UA
26	24.5UA
27	17.9UA
28	20.6UA
30	91.9UA
31	64.4UA
33	1.41MA *
34	315.UA
35	37.1UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	115.UA
STD DEV	273.UA
MEDIAN	36.0UA
MIN VALUE	10.4UA
MAX VALUE	1.41MA
NUMBER	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 1000HR DATA

OUTPUT LEAKAGE CURRENT (IOL) AT 85 C

SERIAL NO.	
4	7.48UA *
5	2.57UA *
6	2.98UA *
7	2.35UA *
8	4.09UA *
9	2.27UA *
10	3.63UA *
11	3.91UA *
12	4.17UA *
13	5.68UA *
14	3.95UA *
15	2.09UA *
16	2.74UA *
17	2.34UA *
18	2.90UA *
19	2.87UA *
20	933.NA
21	2.11UA *
22	516.NA
23	3.76UA *
25	3.24UA *
26	2.78UA *
27	3.79UA *
28	2.85UA *
30	7.20UA *
31	4.08UA *
33	1.39UA *
34	5.31UA *
35	3.08UA *

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	3.22UA
STD DEV	1.39UA
MEDIAN	2.98UA
MIN VALUE	516.NA
MAX VALUE	7.20UA
NUMBER	27

POST 1000HR DATA

ADDRESS ACCESS TIME (TAA) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	170.NS	145.NS	130.NS
5	180.NS	150.NS	135.NS
6	190.NS	160.NS	145.NS
7	190.NS	160.NS	150.NS
8	175.NS	145.NS	130.NS
9	175.NS	150.NS	135.NS
10	180.NS	155.NS	135.NS
11	160.NS	135.NS	125.NS
12	115.NS	105.NS	100.NS
13	170.NS	145.NS	130.NS
14	190.NS	160.NS	140.NS
15	120.NS	110.NS	100.NS
16	230.NS	185.NS	165.NS
17	175.NS	150.NS	125.NS
18	170.NS	145.NS	135.NS
19	210.NS	175.NS	155.NS
20	155.NS	135.NS	120.NS
21	240.NS	200.NS	180.NS
22	190.NS	165.NS	150.NS
23	175.NS	150.NS	135.NS
25	205.NS	175.NS	160.NS
26	160.NS	135.NS	125.NS
27	175.NS	150.NS	135.NS
28	185.NS	160.NS	145.NS
30	175.NS	150.NS	135.NS
31	160.NS	140.NS	130.NS
33	260.NS *	225.NS	205.NS
34	255.NS *	225.NS	205.NS
35	125.NS	115.NS	110.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	182.NS	156.NS	141.NS
STD DEV	35.0NS	28.3NS	25.2NS
MEDIAN	175.NS	150.NS	135.NS
MIN VALUE	115.NS	105.NS	100.NS
MAX VALUE	260.NS	225.NS	205.NS
NUMBER	27	27	27

POST 1000HR DATA

DATA SETUP TIME (TDS) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	20.0NS	18.0NS	18.0NS
5	20.0NS	16.0NS	16.0NS
6	14.0NS	12.0NS	14.0NS
7	10.0NS	12.0NS	16.0NS
8	12.0NS	12.0NS	14.0NS
9	12.0NS	12.0NS	16.0NS
10	18.0NS	18.0NS	18.0NS
11	14.0NS	14.0NS	14.0NS
12	12.0NS	12.0NS	12.0NS
13	16.0NS	16.0NS	16.0NS
14	20.0NS	14.0NS	16.0NS
15	10.0NS	12.0NS	12.0NS
16	16.0NS	18.0NS	22.0NS
17	20.0NS	16.0NS	16.0NS
18	18.0NS	18.0NS	18.0NS
19	16.0NS	18.0NS	22.0NS
20	14.0NS	14.0NS	14.0NS
21	22.0NS	18.0NS	20.0NS
22	12.0NS	12.0NS	14.0NS
23	12.0NS	12.0NS	16.0NS
25	28.0NS	24.0NS	22.0NS
26	14.0NS	14.0NS	16.0NS
27	14.0NS	14.0NS	16.0NS
28	16.0NS	16.0NS	16.0NS
30	18.0NS	16.0NS	18.0NS
31	12.0NS	12.0NS	14.0NS
33	18.0NS	16.0NS	18.0NS
34	18.0NS	18.0NS	18.0NS
35	12.0NS	12.0NS	14.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	15.5NS	14.9NS	16.4NS
STD DEV	3.98NS	2.95NS	2.72NS
MEDIAN	14.0NS	14.0NS	16.0NS
MIN VALUE	10.0NS	12.0NS	12.0NS
MAX VALUE	28.0NS	24.0NS	22.0NS
NUMBER	27	27	27

POST 1000HR DATA

DATA HOLD TIME (TDH) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	14.0NS	18.0NS	20.0NS
5	18.0NS	20.0NS	24.0NS
6	20.0NS	24.0NS	28.0NS
7	20.0NS	24.0NS	28.0NS
8	20.0NS	22.0NS	26.0NS
9	20.0NS	22.0NS	28.0NS
10	16.0NS	20.0NS	22.0NS
11	18.0NS	20.0NS	24.0NS
12	16.0NS	18.0NS	20.0NS
13	18.0NS	20.0NS	24.0NS
14	18.0NS	20.0NS	24.0NS
15	18.0NS	20.0NS	22.0NS
16	22.0NS	26.0NS	30.0NS
17	18.0NS	20.0NS	24.0NS
18	18.0NS	20.0NS	24.0NS
19	22.0NS	26.0NS	30.0NS
20	18.0NS	22.0NS	26.0NS
21	20.0NS	24.0NS	30.0NS
22	20.0NS	22.0NS	26.0NS
23	20.0NS	22.0NS	28.0NS
25	18.0NS	20.0NS	26.0NS
26	18.0NS	20.0NS	24.0NS
27	20.0NS	24.0NS	28.0NS
28	20.0NS	22.0NS	26.0NS
30	16.0NS	20.0NS	22.0NS
31	20.0NS	22.0NS	26.0NS
33	18.0NS	20.0NS	24.0NS
34	18.0NS	20.0NS	24.0NS
35	16.0NS	18.0NS	20.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	18.7NS	21.4NS	25.3NS
STD DEV	1.65NS	2.10NS	2.78NS
MEDIAN	18.0NS	20.0NS	26.0NS
MIN VALUE	16.0NS	18.0NS	20.0NS
MAX VALUE	22.0NS	26.0NS	30.0NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 1000HR DATA

WRITE PULSE WIDTH (TWP) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	66.0NS	60.0NS	54.0NS
5	66.0NS	58.0NS	54.0NS
6	66.0NS	58.0NS	54.0NS
7	54.0NS	48.0NS	46.0NS
8	52.0NS	46.0NS	44.0NS
9	48.0NS	46.0NS	42.0NS
10	64.0NS	56.0NS	54.0NS
11	52.0NS	46.0NS	46.0NS
12	56.0NS	54.0NS	50.0NS
13	54.0NS	50.0NS	46.0NS
14	62.0NS	54.0NS	50.0NS
15	48.0NS	46.0NS	44.0NS
16	60.0NS	54.0NS	52.0NS
17	62.0NS	54.0NS	50.0NS
18	68.0NS	62.0NS	56.0NS
19	62.0NS	56.0NS	54.0NS
20	54.0NS	48.0NS	46.0NS
21	78.0NS	70.0NS	62.0NS
22	54.0NS	48.0NS	46.0NS
23	54.0NS	48.0NS	46.0NS
25	80.0NS	72.0NS	64.0NS
26	52.0NS	48.0NS	46.0NS
27	54.0NS	50.0NS	46.0NS
28	58.0NS	54.0NS	48.0NS
30	62.0NS	56.0NS	54.0NS
31	52.0NS	46.0NS	44.0NS
33	66.0NS	58.0NS	54.0NS
34	68.0NS	62.0NS	56.0NS
35	56.0NS	54.0NS	50.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	59.1NS	53.5NS	50.0NS
STD DEV	8.01NS	6.88NS	5.44NS
MEDIAN	56.0NS	54.0NS	50.0NS
MIN VALUE	48.0NS	46.0NS	42.0NS
MAX VALUE	80.0NS	72.0NS	64.0NS
NUMBER	27	27	27

POST 1000HR DATA

ADDRESS SETUP TIME (TAS) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	22.0NS	22.0NS	22.0NS
5	28.0NS	28.0NS	28.0NS
6	30.0NS	28.0NS	28.0NS
7	28.0NS	26.0NS	30.0NS
8	26.0NS	24.0NS	26.0NS
9	26.0NS	26.0NS	28.0NS
10	26.0NS	26.0NS	26.0NS
11	26.0NS	24.0NS	26.0NS
12	18.0NS	18.0NS	20.0NS
13	26.0NS	24.0NS	26.0NS
14	28.0NS	26.0NS	28.0NS
15	20.0NS	22.0NS	22.0NS
16	42.0NS	34.0NS	32.0NS
17	26.0NS	26.0NS	28.0NS
18	28.0NS	26.0NS	28.0NS
19	38.0NS	30.0NS	32.0NS
20	26.0NS	26.0NS	26.0NS
21	32.0NS	32.0NS	34.0NS
22	30.0NS	28.0NS	30.0NS
23	26.0NS	26.0NS	28.0NS
25	28.0NS	28.0NS	30.0NS
26	24.0NS	24.0NS	24.0NS
27	26.0NS	26.0NS	28.0NS
28	26.0NS	26.0NS	26.0NS
30	24.0NS	24.0NS	26.0NS
31	24.0NS	26.0NS	28.0NS
33	28.0NS	26.0NS	28.0NS
34	74.0NS *	70.0NS	68.0NS
35	22.0NS	22.0NS	22.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	28.8NS	27.6NS	28.8NS
STD DEV	10.0NS	8.85NS	8.26NS
MEDIAN	26.0NS	26.0NS	28.0NS
MIN VALLE	18.0NS	18.0NS	20.0NS
MAX VALLE	74.0NS	70.0NS	68.0NS
NUMBER	27	27	27

POST 1000HR DATA

ADDRESS HOLD TIME (TAH) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	-8.00NS	-4.00NS	0.00 S
5	-8.00NS	-4.00NS	2.00NS
6	-4.00NS	2.00NS	6.00NS
7	-4.00NS	0.00 S	4.00NS
8	-4.00NS	0.00 S	4.00NS
9	-4.00NS	0.00 S	4.00NS
10	-8.00NS	-4.00NS	2.00NS
11	-4.00NS	0.00 S	4.00NS
12	-6.00NS	-4.00NS	0.00 S
13	-8.00NS	-4.00NS	2.00NS
14	-8.00NS	-4.00NS	2.00NS
15	-4.00NS	0.00 S	2.00NS
16	-6.00NS	-2.00NS	4.00NS
17	-6.00NS	-2.00NS	4.00NS
18	-10.0NS	-4.00NS	0.00 S
19	-6.00NS	-2.00NS	4.00NS
20	-4.00NS	0.00 S	4.00NS
21	-8.00NS	-2.00NS	4.00NS
22	-6.00NS	0.00 S	4.00NS
23	-4.00NS	0.00 S	6.00NS
25	-10.0NS	-4.00NS	2.00NS
26	-6.00NS	0.00 S	4.00NS
27	-4.00NS	0.00 S	4.00NS
28	-6.00NS	0.00 S	4.00NS
30	-8.00NS	-4.00NS	2.00NS
31	-4.00NS	2.00NS	6.00NS
33	-10.0NS	-4.00NS	2.00NS
34	-8.00NS	-4.00NS	2.00NS
35	-6.00NS	-2.00NS	0.00 S

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-6.15NS	-1.56NS	3.19NS
STD DEV	2.03NS	1.99NS	1.66NS
MEDIAN	-6.00NS	-2.00NS	4.00NS
MIN VALUE	-10.0NS	-4.00NS	0.00 S
MAX VALUE	-4.00NS	2.00NS	6.00NS
NUMBER	27	27	27

POST 1000HR DATA

CHIP ENABLE TO WRITE TIME (TWS) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	62.0NS	54.0NS	48.0NS
5	62.0NS	54.0NS	48.0NS
6	64.0NS	54.0NS	46.0NS
7	50.0NS	44.0NS	32.0NS
8	48.0NS	42.0NS	36.0NS
9	44.0NS	40.0NS	32.0NS
10	60.0NS	54.0NS	46.0NS
11	48.0NS	42.0NS	36.0NS
12	54.0NS	48.0NS	46.0NS
13	52.0NS	44.0NS	38.0NS
14	58.0NS	50.0NS	44.0NS
15	44.0NS	40.0NS	36.0NS
16	56.0NS	48.0NS	38.0NS
17	58.0NS	50.0NS	44.0NS
18	64.0NS	56.0NS	50.0NS
19	58.0NS	50.0NS	40.0NS
20	50.0NS	44.0NS	38.0NS
21	74.0NS *	64.0NS	56.0NS
22	50.0NS	44.0NS	36.0NS
23	48.0NS	42.0NS	36.0NS
25	76.0NS *	68.0NS	60.0NS
26	48.0NS	42.0NS	36.0NS
27	52.0NS	46.0NS	38.0NS
28	54.0NS	48.0NS	42.0NS
30	60.0NS	52.0NS	46.0NS
31	48.0NS	42.0NS	36.0NS
33	62.0NS	54.0NS	48.0NS
34	64.0NS	56.0NS	50.0NS
35	54.0NS	48.0NS	44.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	55.5NS	48.6NS	41.9NS
STD DEV	8.05NS	6.90NS	6.88NS
MEDIAN	54.0NS	48.0NS	40.0NS
MIN VALUE	44.0NS	40.0NS	32.0NS
MAX VALUE	76.0NS	68.0NS	60.0NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 1000HR DATA

READ CYCLE TIME (TRC) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	180.NS	160.NS	145.NS
5	175.NS	155.NS	145.NS
6	195.NS	160.NS	145.NS
7	180.NS	155.NS	140.NS
8	175.NS	150.NS	135.NS
9	165.NS	145.NS	135.NS
10	180.NS	155.NS	145.NS
11	160.NS	135.NS	125.NS
12	135.NS	125.NS	120.NS
13	175.NS	155.NS	140.NS
14	180.NS	160.NS	145.NS
15	130.NS	120.NS	115.NS
16	225.NS	180.NS	155.NS
17	180.NS	155.NS	145.NS
18	175.NS	155.NS	145.NS
19	210.NS	170.NS	150.NS
20	160.NS	140.NS	130.NS
21	230.NS	200.NS	185.NS
22	190.NS	160.NS	150.NS
23	170.NS	150.NS	135.NS
25	210.NS	190.NS	175.NS
26	160.NS	140.NS	130.NS
27	175.NS	155.NS	145.NS
28	190.NS	160.NS	145.NS
30	175.NS	155.NS	145.NS
31	165.NS	145.NS	130.NS
33	190.NS	165.NS	150.NS
34	190.NS	170.NS	155.NS
35	145.NS	135.NS	130.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	178.NS	155.NS	142.NS
STD DEV	23.2NS	17.4NS	14.6NS
MEDIAN	175.NS	155.NS	145.NS
MIN VALUE	130.NS	120.NS	115.NS
MAX VALUE	230.NS	200.NS	185.NS
NUMBER	27	27	27

POST 1000HR DATA

WRITE CYCLE TIME (TWC) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	98.0NS	92.0NS	86.0NS
5	104.NS	96.0NS	92.0NS
6	106.NS	96.0NS	92.0NS
7	92.0NS	84.0NS	86.0NS
8	88.0NS	80.0NS	80.0NS
9	84.0NS	82.0NS	80.0NS
10	100.NS	92.0NS	90.0NS
11	88.0NS	80.0NS	82.0NS
12	84.0NS	82.0NS	80.0NS
13	90.0NS	84.0NS	82.0NS
14	100.NS	90.0NS	88.0NS
15	80.0NS	80.0NS	80.0NS
16	112.NS	98.0NS	94.0NS
17	98.0NS	90.0NS	88.0NS
18	106.NS	98.0NS	94.0NS
19	110.NS	96.0NS	96.0NS
20	90.0NS	84.0NS	82.0NS
21	119.NS	112.NS	106.NS
22	94.0NS	86.0NS	86.0NS
23	90.0NS	84.0NS	84.0NS
25	118.NS	110.NS	104.NS
26	86.0NS	82.0NS	80.0NS
27	90.0NS	86.0NS	84.0NS
28	94.0NS	90.0NS	84.0NS
30	96.0NS	90.0NS	90.0NS
31	86.0NS	82.0NS	82.0NS
33	104.NS	94.0NS	92.0NS
34	152.NS	141.NS	133.NS
35	88.0NS	86.0NS	82.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	98.0NS	91.1NS	88.9NS
STD DEV	14.8NS	12.8NS	11.1NS
MEDIAN	94.0NS	86.0NS	86.0NS
MIN VALUE	80.0NS	80.0NS	80.0NS
MAX VALUE	152.NS	141.NS	133.NS
NUMBER	27	27	27

POST 1000HR DATA

CHIP ENABLE TIME (TEN) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	30.0NS	26.0NS	24.0NS
5	32.0NS	28.0NS	24.0NS
6	32.0NS	28.0NS	24.0NS
7	30.0NS	26.0NS	24.0NS
8	28.0NS	24.0NS	22.0NS
9	26.0NS	24.0NS	20.0NS
10	32.0NS	28.0NS	24.0NS
11	26.0NS	22.0NS	20.0NS
12	26.0NS	22.0NS	20.0NS
13	32.0NS	26.0NS	24.0NS
14	34.0NS	30.0NS	26.0NS
15	26.0NS	22.0NS	20.0NS
16	32.0NS	28.0NS	24.0NS
17	34.0NS	30.0NS	26.0NS
18	32.0NS	28.0NS	24.0NS
19	30.0NS	26.0NS	24.0NS
20	28.0NS	24.0NS	22.0NS
21	44.0NS	38.0NS	34.0NS
22	32.0NS	28.0NS	24.0NS
23	28.0NS	24.0NS	22.0NS
25	36.0NS	32.0NS	28.0NS
26	28.0NS	24.0NS	22.0NS
27	32.0NS	28.0NS	24.0NS
28	32.0NS	28.0NS	24.0NS
30	30.0NS	26.0NS	24.0NS
31	28.0NS	24.0NS	22.0NS
33	34.0NS	28.0NS	26.0NS
34	32.0NS	28.0NS	26.0NS
35	28.0NS	24.0NS	22.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	30.8NS	26.7NS	23.8NS
STD DEV	3.78NS	3.40NS	2.85NS
MEDIAN	32.0NS	26.0NS	24.0NS
MIN VALUE	26.0NS	22.0NS	20.0NS
MAX VALUE	44.0NS	38.0NS	34.0NS
NUMBER	27	27	27

POST 1000HR DATA

OUTPUT VOLTAGE LOW (VOL) AT 125 C

SERIAL NO.	
4	155.MV
5	175.MV
6	195.MV
7	185.MV
8	180.MV
9	155.MV
10	170.MV
11	165.MV
12	145.MV
13	180.MV
14	200.MV
15	160.MV
16	185.MV
17	185.MV
18	170.MV
19	175.MV
20	165.MV
21	240.MV
22	180.MV
23	160.MV
25	195.MV
26	160.MV
27	185.MV
28	190.MV
30	165.MV
31	155.MV
33	185.MV
34	180.MV
35	155.MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	176.MV
STD DEV	18.8MV
MEDIAN	180.MV
MIN VALUE	145.MV
MAX VALUE	240.MV
NUMBER	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 1000HR DATA

OUTPUT VOLTAGE HIGH (VOH1) AT 125 C

SERIAL NO.	
4	4.34 V
5	4.34 V
6	4.32 V
7	4.33 V
8	4.34 V
9	4.36 V
10	4.34 V
11	4.35 V
12	4.34 V
13	4.34 V
14	4.32 V
15	4.34 V
16	4.34 V
17	4.32 V
18	4.33 V
19	4.34 V
20	4.35 V
21	4.30 V
22	4.33 V
23	4.35 V
25	4.30 V
26	4.35 V
27	4.34 V
28	4.33 V
30	4.34 V
31	4.35 V
33	4.32 V
34	4.32 V
35	4.34 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.60 V
MEAN	4.33 V
STD DEV	14.2MV
MEDIAN	4.34 V
MIN VALUE	4.30 V
MAX VALUE	4.36 V
NUMBER	27

POST 1000HR DATA

OUTPUT VOLTAGE HIGH (VOH2) AT 125 C

SERIAL NO.	
4	4.84 V
5	4.84 V
6	4.83 V
7	4.82 V
8	4.84 V
9	4.85 V
10	4.84 V
11	4.84 V
12	4.84 V
13	4.84 V
14	4.82 V
15	4.84 V
16	4.84 V
17	4.82 V
18	4.84 V
19	4.84 V
20	4.85 V
21	4.80 V
22	4.83 V
23	4.85 V
25	4.81 V
26	4.85 V
27	4.84 V
28	4.83 V
30	4.84 V
31	4.85 V
33	4.82 V
34	4.83 V
35	4.84 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.84 V
STD DEV	12.1MV
MEDIAN	4.84 V
MIN VALUE	4.80 V
MAX VALUE	4.85 V
NUMBER	27

POST 1000HR DATA

AVERAGE INPUT LOW CURRENT (IIL) AT 125 C

SERIAL NO.	
4	-251.NA
5	-329.NA
6	-142.NA
7	-291.NA
8	-100.NA
9	-427.NA
10	-220.NA
11	-131.NA
12	-200.NA
13	-157.NA
14	-153.NA
15	-233.NA
16	-95.2NA
17	-141.NA
18	-210.NA
19	-131.NA
20	-91.9NA
21	-110.NA
22	-456.NA
23	-306.NA
25	-156.NA
26	-140.NA
27	-120.NA
28	-158.NA
30	-210.NA
31	-417.NA
33	-250.NA
34	-246.NA
35	-247.NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-205.NA
STD DEV	99.3NA
MEDIAN	-158.NA
MIN VALUE	-456.NA
MAX VALUE	-91.9NA
NUMBER	27

POST 1000HR DATA

WORST CASE INPUT LOW CURRENT (IIL) AT 125 C

SERIAL NO.	
4	-264.NA
5	-353.NA
6	-151.NA
7	-334.NA
8	-114.NA
9	-446.NA
10	-229.NA
11	-148.NA
12	-240.NA
13	-168.NA
14	-166.NA
15	-243.NA
16	-104.NA
17	-147.NA
18	-225.NA
19	-140.NA
20	-96.5NA
21	-152.NA
22	-484.NA
23	-358.NA
25	-177.NA
26	-151.NA
27	-126.NA
28	-172.NA
30	-245.NA
31	-443.NA
33	-262.NA
34	-265.NA
35	-259.NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-224.NA
STD DEV	105.NA
MEDIAN	-177.NA
MIN VALUE	-484.NA
MAX VALUE	-96.5NA
NUMBER	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 1000HR DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT 125 C

SERIAL NO.	
4	287.NA
5	348.NA
6	162.NA
7	321.NA
8	116.NA
9	430.NA
10	252.NA
11	130.NA
12	238.NA
13	156.NA
14	175.NA
15	250.NA
16	109.NA
17	163.NA
18	229.NA
19	150.NA
20	96.4NA
21	131.NA
22	489.NA
23	348.NA
25	182.NA
26	156.NA
27	135.NA
28	182.NA
30	241.NA
31	426.NA
33	282.NA
34	269.NA
35	264.NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	225.NA
STD DEV	102.NA
MEDIAN	182.NA
MIN VALUE	96.4NA
MAX VALUE	489.NA
NUMBER	27

POST 1000HR DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT 125 C

SERIAL NO.	
4	337.NA
5	397.NA
6	189.NA
7	348.NA
8	134.NA
9	492.NA
10	280.NA
11	145.NA
12	272.NA
13	191.NA
14	208.NA
15	294.NA
16	124.NA
17	187.NA
18	263.NA
19	172.NA
20	111.NA
21	163.NA
22	552.NA *
23	567.NA *
25	200.NA
26	178.NA
27	156.NA
28	212.NA
30	298.NA
31	480.NA
33	314.NA
34	303.NA
35	304.NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	264.NA
STD DEV	126.NA
MEDIAN	212.NA
MIN VALUE	111.NA
MAX VALUE	567.NA
NUMBER	27

POST 1000HR DATA

SUPPLY CURRENT (ICC1B0) AT 125 C

SERIAL NO.	
4	755.UA
5	241.UA
6	184.UA
7	364.UA
8	142.UA
9	438.UA
10	158.UA
11	173.UA
12	245.UA
13	160.UA
14	121.UA
15	380.UA
16	119.UA
17	107.UA
18	146.UA
19	132.UA
20	103.UA
21	88.7UA
22	319.UA
23	296.UA
25	242.UA
26	201.UA
27	173.UA
28	183.UA
30	373.UA
31	350.UA
33	172.UA
34	671.UA
35	301.UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	235.UA
STD DEV	130.UA
MEDIAN	183.UA
MIN VALUE	88.7UA
MAX VALUE	671.UA
NUMBER	27

POST 1000HR DATA

SUPPLY CURRENT (ICC1B1) AT 125 C

SERIAL NO.	
4	1.18MA *
5	276.UA
6	196.UA
7	331.UA
8	137.UA
9	387.UA
10	165.UA
11	179.UA
12	312.UA
13	183.UA
14	125.UA
15	334.UA
16	112.UA
17	110.UA
18	163.UA
19	120.UA
20	113.UA
21	93.0UA
22	273.UA
23	268.UA
25	373.UA
26	197.UA
27	167.UA
28	172.UA
30	532.UA
31	323.UA
33	1.42MA *
34	930.UA
35	286.UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	296.UA
STD DEV	279.UA
MEDIAN	196.UA
MIN VALUE	93.0UA
MAX VALUE	1.42MA
NUMBER	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 1000HR DATA

SUPPLY CURRENT (ICC280) AT 125 C

SERIAL NO.	
4	741.UA
5	429.UA
6	201.UA
7	416.UA
8	154.UA
9	501.UA
10	169.UA
11	186.UA
12	281.UA
13	177.UA
14	133.UA
15	441.UA
16	133.UA
17	124.UA
18	152.UA
19	150.UA
20	113.UA
21	94.6UA
22	824.UA
23	337.UA
25	256.UA
26	229.UA
27	146.UA
28	207.UA
30	372.UA
31	403.UA
33	228.UA
34	687.UA
35	346.UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	276.UA
STD DEV	176.UA
MEDIAN	207.UA
MIN VALUE	94.6UA
MAX VALUE	824.UA
NUMBER	27

POST 1000HR DATA

SUPPLY CURRENT (ICC2B1) AT 125 C

SERIAL NO.	
4	866.UA
5	379.UA
6	161.UA
7	285.UA
8	114.UA
9	329.UA
10	127.UA
11	131.UA
12	209.UA
13	139.UA
14	96.8UA
15	269.UA
16	87.1UA
17	90.9UA
18	120.UA
19	95.3UA
20	82.6UA
21	69.1UA
22	683.UA
23	221.UA
25	269.UA
26	154.UA
27	99.5UA
28	135.UA
30	377.UA
31	273.UA
33	1.47MA *
34	693.UA
35	224.UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	260.UA
STD DEV	285.UA
MEDIAN	154.UA
MIN VALUE	69.1UA
MAX VALUE	1.47MA
NUMBER	27

POST 1000HR DATA

OUTPUT LEAKAGE CURRENT (IOL) AT 125 C

SERIAL NO.	
4	22.6UA *
5	4.70UA *
6	1.28UA *
7	2.09UA *
8	939.NA
9	1.94UA *
10	2.37UA *
11	2.24UA *
12	3.68UA *
13	2.92UA *
14	1.28UA *
15	2.27UA *
16	970.NA
17	1.42UA *
18	2.69UA *
19	957.NA
20	1.42UA *
21	1.04UA *
22	1.75UA *
23	1.51UA *
25	5.53UA *
26	1.76UA *
27	894.NA
28	1.47UA *
30	14.3UA *
31	1.67UA *
33	2.48UA *
34	13.5UA *
35	2.43UA *

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	2.84UA
STD DEV	3.27UA
MEDIAN	1.76UA
MIN VALUE	894.NA
MAX VALUE	14.3UA
NUMBER	27

POST 2000-HOUR BURN-IN DATA

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

RCA MWS5001D 1024 BIT RAM DATE: 08 JAN 78

POST 2000HR DATA

ADDRESS ACCESS TIME (TAA) AT 25 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	125.NS	105.NS	95.0NS
5	155.NS	125.NS	110.NS
6	215.NS	160.NS	130.NS
7	155.NS	125.NS	115.NS
8	185.NS	135.NS	115.NS
9	160.NS	125.NS	110.NS
10	155.NS	125.NS	110.NS
11	155.NS	120.NS	105.NS
12	95.0NS	85.0NS	80.0NS
13	165.NS	125.NS	110.NS
14	180.NS	140.NS	125.NS
15	105.NS	90.0NS	85.0NS
16	210.NS	150.NS	125.NS
17	170.NS	135.NS	115.NS
18	155.NS	125.NS	110.NS
19	195.NS	145.NS	125.NS
20	150.NS	120.NS	105.NS
21	225.NS	175.NS	150.NS
22	205.NS	155.NS	130.NS
23	160.NS	130.NS	115.NS
25	175.NS	140.NS	125.NS
26	150.NS	120.NS	105.NS
27	165.NS	130.NS	115.NS
28	185.NS	145.NS	120.NS
30	145.NS	120.NS	105.NS
31	155.NS	125.NS	110.NS
33	200.NS	160.NS	140.NS
34	215.NS	175.NS	150.NS
35	105.NS	95.0NS	85.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	168.NS	132.NS	115.NS
STD DEV	32.6NS	21.8NS	16.7NS
MEDIAN	165.NS	130.NS	115.NS
MIN VALLE	95.0NS	85.0NS	80.0NS
MAX VALLE	225.NS	175.NS	150.NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 2000HR DATA

DATA SETUP TIME (TDS) AT 25 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	22.0NS	18.0NS	18.0NS
5	22.0NS	20.0NS	18.0NS
6	18.0NS	16.0NS	14.0NS
7	14.0NS	14.0NS	18.0NS
8	18.0NS	14.0NS	14.0NS
9	14.0NS	14.0NS	18.0NS
10	22.0NS	20.0NS	18.0NS
11	14.0NS	14.0NS	14.0NS
12	18.0NS	16.0NS	12.0NS
13	20.0NS	18.0NS	16.0NS
14	24.0NS	18.0NS	18.0NS
15	14.0NS	12.0NS	12.0NS
16	18.0NS	18.0NS	20.0NS
17	24.0NS	18.0NS	18.0NS
18	22.0NS	22.0NS	20.0NS
19	20.0NS	18.0NS	20.0NS
20	16.0NS	14.0NS	14.0NS
21	22.0NS	20.0NS	20.0NS
22	18.0NS	14.0NS	16.0NS
23	14.0NS	16.0NS	18.0NS
25	30.0NS	26.0NS	24.0NS
26	16.0NS	14.0NS	14.0NS
27	18.0NS	16.0NS	16.0NS
28	18.0NS	18.0NS	18.0NS
30	20.0NS	16.0NS	16.0NS
31	14.0NS	14.0NS	16.0NS
33	22.0NS	20.0NS	18.0NS
34	18.0NS	16.0NS	18.0NS
35	18.0NS	14.0NS	14.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	18.7NS	16.7NS	16.8NS
STD DEV	3.77NS	3.03NS	2.74NS
MEDIAN	18.0NS	16.0NS	18.0NS
MIN VALUE	14.0NS	12.0NS	12.0NS
MAX VALUE	30.0NS	26.0NS	24.0NS
NUMBER	27	27	27

POST 2000HR DATA

DATA HOLD TIME (TDH) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	8.00NS	10.0NS	14.0NS
5	10.0NS	14.0NS	16.0NS
6	14.0NS	20.0NS	24.0NS
7	12.0NS	16.0NS	20.0NS
8	14.0NS	18.0NS	20.0NS
9	14.0NS	16.0NS	20.0NS
10	10.0NS	12.0NS	14.0NS
11	12.0NS	14.0NS	18.0NS
12	10.0NS	12.0NS	14.0NS
13	10.0NS	12.0NS	16.0NS
14	12.0NS	14.0NS	16.0NS
15	12.0NS	14.0NS	16.0NS
16	14.0NS	16.0NS	22.0NS
17	12.0NS	14.0NS	16.0NS
18	12.0NS	14.0NS	16.0NS
19	16.0NS	18.0NS	22.0NS
20	12.0NS	14.0NS	18.0NS
21	14.0NS	16.0NS	22.0NS
22	14.0NS	18.0NS	22.0NS
23	14.0NS	16.0NS	20.0NS
25	10.0NS	14.0NS	16.0NS
26	12.0NS	14.0NS	16.0NS
27	14.0NS	16.0NS	20.0NS
28	12.0NS	14.0NS	18.0NS
30	10.0NS	12.0NS	16.0NS
31	14.0NS	16.0NS	20.0NS
33	10.0NS	12.0NS	16.0NS
34	10.0NS	12.0NS	16.0NS
35	10.0NS	12.0NS	14.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	12.2NS	14.7NS	18.1NS
STD DEV	1.75NS	2.18NS	2.80NS
MEDIAN	12.0NS	14.0NS	18.0NS
MIN VALUE	10.0NS	12.0NS	14.0NS
MAX VALUE	16.0NS	20.0NS	24.0NS
NUMBER	27	27	27

POST 2000HR DATA

WRITE PULSE WIDTH (TWP) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	48.0NS	42.0NS	40.0NS
5	50.0NS	44.0NS	40.0NS
6	44.0NS	42.0NS	38.0NS
7	42.0NS	40.0NS	34.0NS
8	40.0NS	38.0NS	32.0NS
9	40.0NS	34.0NS	32.0NS
10	50.0NS	44.0NS	40.0NS
11	42.0NS	36.0NS	32.0NS
12	50.0NS	42.0NS	42.0NS
13	42.0NS	36.0NS	32.0NS
14	52.0NS	42.0NS	42.0NS
15	42.0NS	38.0NS	34.0NS
16	48.0NS	42.0NS	40.0NS
17	52.0NS	42.0NS	42.0NS
18	56.0NS	50.0NS	42.0NS
19	50.0NS	46.0NS	42.0NS
20	44.0NS	40.0NS	36.0NS
21	62.0NS	50.0NS	44.0NS
22	46.0NS	40.0NS	34.0NS
23	42.0NS	36.0NS	34.0NS
25	58.0NS	50.0NS	48.0NS
26	42.0NS	38.0NS	32.0NS
27	44.0NS	40.0NS	36.0NS
28	48.0NS	42.0NS	36.0NS
30	48.0NS	42.0NS	38.0NS
31	40.0NS	36.0NS	32.0NS
33	52.0NS	44.0NS	40.0NS
34	48.0NS	44.0NS	40.0NS
35	44.0NS	42.0NS	40.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	47.0NS	41.3NS	37.6NS
STD DEV	5.67NS	4.22NS	4.40NS
MEDIAN	46.0NS	42.0NS	38.0NS
MIN VALUE	40.0NS	34.0NS	32.0NS
MAX VALUE	62.0NS	50.0NS	48.0NS
NUMBER	27	27	27

POST 2000HR DATA

ADDRESS SETUP TIME (TAS) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	14.0NS	14.0NS	14.0NS
5	20.0NS	18.0NS	18.0NS
6	42.0NS	28.0NS	24.0NS
7	26.0NS	20.0NS	20.0NS
8	34.0NS	22.0NS	18.0NS
9	28.0NS	22.0NS	22.0NS
10	20.0NS	16.0NS	16.0NS
11	26.0NS	18.0NS	18.0NS
12	10.0NS	10.0NS	12.0NS
13	24.0NS	18.0NS	16.0NS
14	26.0NS	20.0NS	18.0NS
15	12.0NS	12.0NS	14.0NS
16	40.0NS	26.0NS	24.0NS
17	22.0NS	18.0NS	18.0NS
18	20.0NS	16.0NS	18.0NS
19	38.0NS	26.0NS	22.0NS
20	20.0NS	16.0NS	18.0NS
21	26.0NS	20.0NS	22.0NS
22	40.0NS	28.0NS	26.0NS
23	28.0NS	22.0NS	20.0NS
25	22.0NS	18.0NS	20.0NS
26	24.0NS	18.0NS	16.0NS
27	24.0NS	18.0NS	18.0NS
28	30.0NS	22.0NS	18.0NS
30	18.0NS	16.0NS	16.0NS
31	26.0NS	20.0NS	20.0NS
33	22.0NS	18.0NS	18.0NS
34	72.0NS *	54.0NS	50.0NS
35	14.0NS	14.0NS	14.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	27.2NS	20.6NS	19.9NS
STD DEV	11.8NS	7.83NS	6.71NS
MEDIAN	26.0NS	18.0NS	18.0NS
MIN VALLE	10.0NS	10.0NS	12.0NS
MAX VALLE	72.0NS	54.0NS	50.0NS
NUMBER	27	27	27

POST 2000HR DATA

ADDRESS HOLD TIME (TAH) AT 25 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	-4.00NS	0.00 S	2.00NS
5	-6.00NS	0.00 S	4.00NS
6	-4.00NS	2.00NS	6.00NS
7	-4.00NS	2.00NS	4.00NS
8	-4.00NS	2.00NS	6.00NS
9	-2.00NS	2.00NS	0.00NS
10	-6.00NS	0.00 S	2.00NS
11	-2.00NS	2.00NS	6.00NS
12	-2.00NS	0.00 S	4.00NS
13	-4.00NS	0.00 S	4.00NS
14	-6.00NS	0.00 S	4.00NS
15	0.00 S	2.00NS	4.00NS
16	-2.00NS	2.00NS	6.00NS
17	-6.00NS	0.00 S	4.00NS
18	-4.00NS	0.00 S	4.00NS
19	-4.00NS	2.00NS	6.00NS
20	-2.00NS	2.00NS	4.00NS
21	-6.00NS	0.00 S	6.00NS
22	-4.00NS	2.00NS	6.00NS
23	-2.00NS	2.00NS	6.00NS
25	-6.00NS	-2.00NS	2.00NS
26	-2.00NS	2.00NS	4.00NS
27	-2.00NS	2.00NS	6.00NS
28	-4.00NS	0.00 S	6.00NS
30	-4.00NS	0.00 S	4.00NS
31	-2.00NS	2.00NS	8.00NS
33	-6.00NS	0.00 S	2.00NS
34	-4.00NS	0.00 S	4.00NS
35	-4.00NS	0.00 S	2.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-3.63NS	963.PS	4.74NS
STD DEV	1.64NS	1.14NS	1.65NS
MEDIAN	-4.00NS	2.00NS	4.00NS
MIN VALUE	-6.00NS	-2.00NS	2.00NS
MAX VALUE	0.00 S	2.00NS	8.00NS
NUMBER	27	27	27

POST 2000HR DATA

CHIP ENABLE TO WRITE TIME (TWS) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	50.0NS	42.0NS	36.0NS
5	54.0NS	48.0NS	38.0NS
6	50.0NS	42.0NS	36.0NS
7	42.0NS	38.0NS	32.0NS
8	44.0NS	38.0NS	30.0NS
9	42.0NS	34.0NS	28.0NS
10	54.0NS	46.0NS	40.0NS
11	42.0NS	34.0NS	30.0NS
12	50.0NS	42.0NS	38.0NS
13	42.0NS	36.0NS	30.0NS
14	54.0NS	42.0NS	40.0NS
15	42.0NS	38.0NS	32.0NS
16	50.0NS	42.0NS	34.0NS
17	54.0NS	42.0NS	40.0NS
18	54.0NS	50.0NS	42.0NS
19	50.0NS	46.0NS	38.0NS
20	42.0NS	40.0NS	32.0NS
21	58.0NS	50.0NS	42.0NS
22	48.0NS	42.0NS	32.0NS
23	42.0NS	36.0NS	30.0NS
25	58.0NS	54.0NS	44.0NS
26	42.0NS	38.0NS	30.0NS
27	48.0NS	40.0NS	34.0NS
28	48.0NS	38.0NS	34.0NS
30	48.0NS	42.0NS	36.0NS
31	42.0NS	38.0NS	30.0NS
33	54.0NS	46.0NS	40.0NS
34	50.0NS	42.0NS	38.0NS
35	48.0NS	40.0NS	36.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	48.1NS	41.3NS	35.1NS
STD DEV	5.23NS	4.78NS	4.50NS
MEDIAN	48.0NS	42.0NS	34.0NS
MIN VALUE	42.0NS	34.0NS	28.0NS
MAX VALUE	58.0NS	54.0NS	44.0NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 2000HR DATA

READ CYCLE TIME (TRC) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	125.NS	110.NS	105.NS
5	155.NS	130.NS	115.NS
6	180.NS	140.NS	120.NS
7	140.NS	120.NS	110.NS
8	160.NS	125.NS	110.NS
9	140.NS	120.NS	110.NS
10	150.NS	125.NS	115.NS
11	140.NS	115.NS	105.NS
12	105.NS	100.NS	100.NS
13	150.NS	125.NS	110.NS
14	160.NS	135.NS	120.NS
15	105.NS	100.NS	100.NS
16	180.NS	140.NS	120.NS
17	160.NS	130.NS	120.NS
18	150.NS	125.NS	115.NS
19	170.NS	135.NS	120.NS
20	135.NS	115.NS	105.NS
21	195.NS	160.NS	140.NS
22	175.NS	140.NS	125.NS
23	145.NS	120.NS	110.NS
25	165.NS	140.NS	125.NS
26	140.NS	115.NS	105.NS
27	150.NS	125.NS	115.NS
28	165.NS	130.NS	115.NS
30	145.NS	120.NS	110.NS
31	140.NS	120.NS	110.NS
33	160.NS	135.NS	120.NS
34	150.NS	120.NS	110.NS
35	115.NS	105.NS	100.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	151.NS	125.NS	114.NS
STD DEV	20.8NS	13.0NS	8.80NS
MEDIAN	150.NS	125.NS	110.NS
MIN VALLE	105.NS	100.NS	100.NS
MAX VALLE	195.NS	160.NS	140.NS
NUMBER	27	27	27

POST 2000HR DATA

WRITE CYCLE TIME (TWC) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	80.0NS	80.0NS	80.0NS
5	80.0NS	80.0NS	80.0NS
6	96.0NS	80.0NS	80.0NS
7	80.0NS	80.0NS	80.0NS
8	84.0NS	80.0NS	80.0NS
9	80.0NS	80.0NS	80.0NS
10	80.0NS	80.0NS	80.0NS
11	80.0NS	80.0NS	80.0NS
12	80.0NS	80.0NS	80.0NS
13	80.0NS	80.0NS	80.0NS
14	88.0NS	80.0NS	80.0NS
15	80.0NS	80.0NS	80.0NS
16	98.0NS	80.0NS	80.0NS
17	84.0NS	80.0NS	80.0NS
18	86.0NS	80.0NS	80.0NS
19	98.0NS	82.0NS	80.0NS
20	80.0NS	80.0NS	80.0NS
21	98.0NS	80.0NS	80.0NS
22	96.0NS	80.0NS	80.0NS
23	80.0NS	80.0NS	80.0NS
25	90.0NS	80.0NS	80.0NS
26	80.0NS	80.0NS	80.0NS
27	80.0NS	80.0NS	80.0NS
28	88.0NS	80.0NS	80.0NS
30	80.0NS	80.0NS	80.0NS
31	80.0NS	80.0NS	80.0NS
33	84.0NS	80.0NS	80.0NS
34	129.NS	108.NS	100.NS
35	80.0NS	80.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	86.6NS	81.1NS	80.7NS
STD DEV	10.6NS	5.29NS	3.78NS
MEDIAN	80.0NS	80.0NS	80.0NS
MIN VALLE	80.0NS	80.0NS	80.0NS
MAX VALLE	129.NS	108.NS	100.NS
NUMBER	27	27	27

POST 2000HR DATA

CHIP ENABLE TIME (TEN) AT 25 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	28.0NS	24.0NS	22.0NS
5	30.0NS	26.0NS	24.0NS
6	32.0NS	28.0NS	24.0NS
7	28.0NS	24.0NS	22.0NS
8	28.0NS	24.0NS	22.0NS
9	26.0NS	24.0NS	22.0NS
10	30.0NS	26.0NS	24.0NS
11	26.0NS	22.0NS	20.0NS
12	26.0NS	22.0NS	20.0NS
13	30.0NS	26.0NS	24.0NS
14	34.0NS	30.0NS	26.0NS
15	26.0NS	22.0NS	20.0NS
16	30.0NS	26.0NS	22.0NS
17	32.0NS	28.0NS	26.0NS
18	30.0NS	26.0NS	24.0NS
19	30.0NS	24.0NS	22.0NS
20	28.0NS	24.0NS	22.0NS
21	40.0NS	34.0NS	32.0NS
22	32.0NS	28.0NS	24.0NS
23	28.0NS	24.0NS	22.0NS
25	32.0NS	28.0NS	26.0NS
26	26.0NS	24.0NS	20.0NS
27	30.0NS	26.0NS	24.0NS
28	30.0NS	26.0NS	24.0NS
30	28.0NS	24.0NS	22.0NS
31	28.0NS	24.0NS	22.0NS
33	32.0NS	26.0NS	24.0NS
34	30.0NS	26.0NS	22.0NS
35	26.0NS	24.0NS	22.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	29.6NS	25.6NS	23.1NS
STD DEV	3.05NS	2.57NS	2.45NS
MEDIAN	30.0NS	26.0NS	22.0NS
MIN VALUE	26.0NS	22.0NS	20.0NS
MAX VALUE	40.0NS	34.0NS	32.0NS
NUMBER	27	27	27

POST 2000HR DATA

OUTPUT VOLTAGE LOW (VOL) AT 25 C

SERIAL NO.	
4	105.MV
5	120.MV
6	140.MV
7	120.MV
8	125.MV
9	105.MV
10	115.MV
11	110.MV
12	100.MV
13	125.MV
14	140.MV
15	110.MV
16	125.MV
17	130.MV
18	115.MV
19	120.MV
20	115.MV
21	170.MV
22	125.MV
23	110.MV
25	135.MV
26	110.MV
27	130.MV
28	130.MV
30	115.MV
31	105.MV
33	125.MV
34	120.MV
35	110.MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	121.MV
STD DEV	14.1MV
MEDIAN	120.MV
MIN VALUE	100.MV
MAX VALUE	170.MV
NUMBER	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 2000HR DATA

OUTPUT VOLTAGE HIGH (VOH1) AT 25 C

SERIAL NO.	
4	4.38 V
5	4.36 V
6	4.36 V
7	4.38 V
8	4.38 V
9	4.39 V
10	4.38 V
11	4.38 V
12	4.38 V
13	4.38 V
14	4.36 V
15	4.38 V
16	4.38 V
17	4.36 V
18	4.36 V
19	4.38 V
20	4.38 V
21	4.34 V
22	4.36 V
23	4.38 V
25	4.35 V
26	4.38 V
27	4.38 V
28	4.37 V
30	4.38 V
31	4.39 V
33	4.37 V
34	4.38 V
35	4.38 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.60 V
MEAN	4.37 V
STD DEV	11.5MV
MEDIAN	4.38 V
MIN VALUE	4.34 V
MAX VALUE	4.39 V
NUMBER	27

POST 2000HR DATA

OUTPUT VOLTAGE HIGH (VOH2) AT 25 C

SERIAL NO.	
4	4.88 V
5	4.88 V
6	4.88 V
7	4.87 V
8	4.88 V
9	4.88 V
10	4.88 V
11	4.88 V
12	4.88 V
13	4.88 V
14	4.86 V
15	4.88 V
16	4.88 V
17	4.86 V
18	4.88 V
19	4.88 V
20	4.88 V
21	4.85 V
22	4.87 V
23	4.88 V
25	4.86 V
26	4.89 V
27	4.88 V
28	4.88 V
30	4.88 V
31	4.88 V
33	4.88 V
34	4.88 V
35	4.88 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.88 V
STD DEV	8.36MV
MEDIAN	4.88 V
MIN VALUE	4.85 V
MAX VALUE	4.89 V
NUMBER	27

POST 2000HR DATA

AVERAGE INPUT LOW CURRENT (IIL) AT 25 C

SERIAL NO.	
4	650.PA
5	-5.06NA
6	2.60NA
7	-662.PA
8	-3.57NA
9	-2.83NA
10	-3.06NA
11	-558.PA
12	-2.25NA
13	2.19NA
14	288.PA
15	-3.83NA
16	-3.15NA
17	-3.51NA
18	-4.03NA
19	2.30NA
20	-3.19NA
21	-2.17NA
22	-5.38NA
23	-4.77NA
25	-3.70NA
26	-3.48NA
27	-3.67NA
28	-3.04NA
30	235.PA
31	-4.29NA
33	-2.91NA
34	-4.52NA
35	-4.34NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-2.42NA
STD DEV	2.19NA
MEDIAN	-3.15NA
MIN VALLE	-5.38NA
MAX VALLE	2.60NA
NUMBER	27

POST 2000HR DATA

WORST CASE INPUT LOW CURRENT (IIL) AT 25 C

SERIAL NO.	
4	1.75NA
5	-6.30NA
6	3.10NA
7	-2.55NA
8	-4.00NA
9	-5.55NA
10	-4.75NA
11	-3.75NA
12	-3.40NA
13	2.60NA
14	1.60NA
15	-4.45NA
16	-3.65NA
17	-4.10NA
18	-4.70NA
19	3.20NA
20	-3.85NA
21	-3.05NA
22	-5.75NA
23	-14.7NA
25	-4.45NA
26	-4.15NA
27	-4.00NA
28	-4.15NA
30	2.05NA
31	-6.70NA
33	-4.90NA
34	-4.85NA
35	-4.75NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-3.47NA
STD DEV	3.55NA
MEDIAN	-4.10NA
MIN VALUE	-14.7NA
MAX VALUE	3.20NA
NUMBER	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 2000HR DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT 25 C

SERIAL NO.	
4	3.35NA
5	3.38NA
6	1.62NA
7	2.35NA
8	1.53NA
9	3.28NA
10	2.47NA
11	1.72NA
12	1.70NA
13	1.75NA
14	1.32NA
15	1.99NA
16	1.44NA
17	1.72NA
18	2.10NA
19	1.75NA
20	1.52NA
21	1.05NA
22	3.55NA
23	13.4NA
25	2.02NA
26	1.59NA
27	1.65NA
28	1.77NA
30	2.62NA
31	3.08NA
33	2.42NA
34	2.83NA
35	2.19NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	2.46NA
STD DEV	2.22NA
MEDIAN	1.77NA
MIN VALUE	1.05NA
MAX VALUE	13.4NA
NUMBER	27

POST 2000HR DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT 25 C

SERIAL NO.	
4	6.80NA
5	7.15NA
6	4.85NA
7	5.40NA
8	4.80NA
9	6.55NA
10	5.85NA
11	4.85NA
12	4.85NA
13	4.95NA
14	5.15NA
15	5.75NA
16	4.60NA
17	5.55NA
18	5.75NA
19	5.10NA
20	5.05NA
21	4.80NA
22	7.45NA
23	143.NA
25	5.75NA
26	5.20NA
27	4.85NA
28	5.30NA
30	6.15NA
31	6.45NA
33	5.95NA
34	6.50NA
35	5.65NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	10.6NA
STD DEV	25.9NA
MEDIAN	5.40NA
MIN VALUE	4.60NA
MAX VALUE	143.NA
NUMBER	27

POST 2000HR DATA

SUPPLY CURRENT (ICC180) AT 25 C

SERIAL NO.	
4	25.2UA
5	3.27UA
6	17.0UA
7	2.04UA
8	14.1UA
9	6.40UA
10	3.16UA
11	927.NA
12	1.69UA
13	1.08UA
14	6.15UA
15	2.28UA
16	520.NA
17	571.NA
18	1.14UA
19	609.NA
20	539.NA
21	616.NA
22	2.03UA
23	4.03UA
25	3.79UA
26	1.03UA
27	3.84UA
28	1.01UA
30	12.8UA
31	2.21UA
33	15.6UA
34	162.UA
35	1.74UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	9.96UA
STD DEV	30.2UA
MEDIAN	2.04UA
MIN VALUE	539.NA
MAX VALUE	162.UA
NUMBER	27

POST 2000HR DATA

SUPPLY CURRENT (ICC1B1) AT 25 C

SERIAL NO.	
4	100.UA
5	4.25UA
6	22.8UA
7	20.0UA
8	14.2UA
9	13.3UA
10	3.25UA
11	1.19UA
12	8.38UA
13	1.60UA
14	1.28UA
15	2.98UA
16	669.NA
17	701.NA
18	1.44UA
19	609.NA
20	794.NA
21	795.NA
22	1.81UA
23	13.5UA
25	16.9UA
26	1.63UA
27	3.90UA
28	1.07UA
30	18.5UA
31	24.0UA
33	1.44MA *
34	175.UA
35	2.71UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	66.2UA
STD DEV	270.UA
MEDIAN	2.98UA
MIN VALLE	609.NA
MAX VALLE	1.44MA
NUMBER	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 2000HR DATA

SUPPLY CURRENT (ICC280) AT 25 C

SERIAL NO.	
4	25.8UA
5	145.UA
6	17.0UA
7	2.31UA
8	14.4UA
9	7.09UA
10	3.19UA
11	1.02UA
12	4.63UA
13	4.68UA
14	6.19UA
15	3.02UA
16	673.NA
17	7.05UA
18	1.14UA
19	680.NA
20	648.NA
21	544.NA
22	516.UA
23	2.86UA
25	5.02UA
26	1.56UA
27	2.33UA
28	1.19UA
30	7.28UA
31	2.45UA
33	51.2UA
34	213.UA
35	2.51UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	32.5UA
STD DEV	103.UA
MEDIAN	3.02UA
MIN VALUE	544.NA
MAX VALUE	516.UA
NUMBER	27

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POST 2000HR DATA

SUPPLY CURRENT (ICC2B1) AT 25 C

SERIAL NO.	
4	100.UA
5	144.UA
6	22.3UA
7	20.8UA
8	14.2UA
9	13.0UA
10	2.91UA
11	749.NA
12	1.90UA
13	4.51UA
14	1.10UA
15	1.65UA
16	445.NA
17	6.91UA
18	995.NA
19	447.NA
20	470.NA
21	379.NA
22	516.UA
23	11.8UA
25	13.6UA
26	1.02UA
27	2.11UA
28	677.NA
30	8.71UA
31	23.7UA
33	1.51MA *
34	214.UA
35	1.37UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	88.5UA
STD DEV	296.UA
MEDIAN	2.91UA
MIN VALUE	379.NA
MAX VALUE	1.51MA
NUMBER	27

POST 2000HR DATA

OUTPUT LEAKAGE CURRENT (IOL) AT 25 C

SERIAL NO.	
4	747.NA
5	69.2NA
6	11.7NA
7	8.05NA
8	2.30NA
9	12.7NA
10	20.8NA
11	14.2NA
12	24.1NA
13	31.0NA
14	11.7NA
15	7.35NA
16	2.55NA
17	9.15NA
18	23.7NA
19	8.60NA
20	8.05NA
21	6.25NA
22	9.50NA
23	7.10NA
25	74.7NA
26	8.40NA
27	2.65NA
28	7.00NA
30	364.NA
31	9.80NA
33	19.7NA
34	313.NA
35	10.0NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	38.1NA
STD DEV	86.4NA
MEDIAN	9.80NA
MIN VALUE	2.30NA
MAX VALUE	364.NA
NUMBER	27

POST 2000HR DATA

ADDRESS ACCESS TIME (TAA) AT -40 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	125.NS	95.0NS	85.0NS
5	175.NS	130.NS	110.NS
6	320.NS *	180.NS	135.NS
7	150.NS	115.NS	100.NS
8	260.NS *	150.NS	115.NS
9	180.NS	120.NS	100.NS
10	175.NS	125.NS	105.NS
11	195.NS	125.NS	100.NS
12	90.0NS	80.0NS	70.0NS
13	205.NS	135.NS	105.NS
14	225.NS	150.NS	120.NS
15	100.NS	85.0NS	80.0NS
16	285.NS *	160.NS	125.NS
17	200.NS	140.NS	115.NS
18	175.NS	130.NS	105.NS
19	245.NS	150.NS	120.NS
20	165.NS	120.NS	100.NS
21	245.NS	175.NS	140.NS
22	255.NS *	110.NS	125.NS
23	180.NS	125.NS	105.NS
25	170.NS	135.NS	115.NS
26	180.NS	125.NS	100.NS
27	185.NS	130.NS	110.NS
28	235.NS	150.NS	120.NS
30	155.NS	115.NS	100.NS
31	165.NS	120.NS	100.NS
33	215.NS	155.NS	130.NS
34	240.NS	180.NS	145.NS
35	100.NS	85.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	196.NS	132.NS	110.NS
STD DEV	53.8NS	25.8NS	17.4NS
MEDIAN	185.NS	130.NS	105.NS
MIN VALUE	90.0NS	80.0NS	70.0NS
MAX VALUE	320.NS	180.NS	145.NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 2000HR DATA

DATA SETUP TIME (TDS) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	16.0NS	14.0NS	14.0NS
5	20.0NS	16.0NS	14.0NS
6	16.0NS	12.0NS	12.0NS
7	10.0NS	10.0NS	12.0NS
8	14.0NS	12.0NS	12.0NS
9	12.0NS	10.0NS	12.0NS
10	20.0NS	16.0NS	14.0NS
11	14.0NS	12.0NS	12.0NS
12	16.0NS	12.0NS	12.0NS
13	16.0NS	14.0NS	14.0NS
14	20.0NS	16.0NS	14.0NS
15	12.0NS	10.0NS	10.0NS
16	16.0NS	14.0NS	16.0NS
17	22.0NS	16.0NS	14.0NS
18	20.0NS	18.0NS	16.0NS
19	16.0NS	14.0NS	16.0NS
20	14.0NS	12.0NS	12.0NS
21	20.0NS	18.0NS	16.0NS
22	14.0NS	12.0NS	12.0NS
23	12.0NS	12.0NS	12.0NS
25	24.0NS	22.0NS	20.0NS
26	12.0NS	12.0NS	12.0NS
27	14.0NS	12.0NS	14.0NS
28	16.0NS	14.0NS	14.0NS
30	16.0NS	14.0NS	14.0NS
31	12.0NS	12.0NS	12.0NS
33	20.0NS	16.0NS	14.0NS
34	14.0NS	14.0NS	14.0NS
35	14.0NS	12.0NS	12.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	15.8NS	13.6NS	13.5NS
STD DEV	3.46NS	2.72NS	2.01NS
MEDIAN	16.0NS	12.0NS	14.0NS
MIN VALUE	10.0NS	10.0NS	10.0NS
MAX VALUE	24.0NS	22.0NS	20.0NS
NUMBER	27	27	27

POST 2000HR DATA

DATA HOLD TIME (TDH) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	8.00NS	10.0NS	12.0NS
5	12.0NS	14.0NS	18.0NS
6	16.0NS	20.0NS	22.0NS
7	12.0NS	14.0NS	16.0NS
8	14.0NS	14.0NS	20.0NS
9	12.0NS	14.0NS	18.0NS
10	12.0NS	12.0NS	14.0NS
11	12.0NS	14.0NS	16.0NS
12	10.0NS	12.0NS	14.0NS
13	10.0NS	12.0NS	16.0NS
14	12.0NS	14.0NS	16.0NS
15	12.0NS	14.0NS	16.0NS
16	14.0NS	16.0NS	20.0NS
17	12.0NS	14.0NS	16.0NS
18	12.0NS	14.0NS	18.0NS
19	16.0NS	18.0NS	22.0NS
20	12.0NS	14.0NS	16.0NS
21	14.0NS	16.0NS	20.0NS
22	14.0NS	18.0NS	18.0NS
23	12.0NS	14.0NS	18.0NS
25	10.0NS	12.0NS	16.0NS
26	12.0NS	14.0NS	16.0NS
27	14.0NS	16.0NS	18.0NS
28	12.0NS	14.0NS	20.0NS
30	10.0NS	12.0NS	14.0NS
31	12.0NS	14.0NS	18.0NS
33	12.0NS	14.0NS	18.0NS
34	10.0NS	12.0NS	14.0NS
35	12.0NS	14.0NS	14.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	12.3NS	14.3NS	17.2NS
STD DEV	1.61NS	1.94NS	2.33NS
MEDIAN	12.0NS	14.0NS	16.0NS
MIN VALUE	10.0NS	12.0NS	14.0NS
MAX VALUE	16.0NS	20.0NS	22.0NS
NUMBER	27	27	27

POST 2000HR DATA

WRITE PULSE WIDTH (TWP) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	44.0NS	38.0NS	32.0NS
5	48.0NS	42.0NS	38.0NS
6	48.0NS	40.0NS	36.0NS
7	36.0NS	36.0NS	30.0NS
8	40.0NS	36.0NS	32.0NS
9	34.0NS	34.0NS	30.0NS
10	52.0NS	44.0NS	40.0NS
11	40.0NS	34.0NS	32.0NS
12	48.0NS	44.0NS	40.0NS
13	40.0NS	32.0NS	32.0NS
14	52.0NS	44.0NS	38.0NS
15	40.0NS	38.0NS	34.0NS
16	46.0NS	42.0NS	38.0NS
17	54.0NS	44.0NS	38.0NS
18	54.0NS	46.0NS	42.0NS
19	48.0NS	44.0NS	40.0NS
20	44.0NS	36.0NS	34.0NS
21	54.0NS	50.0NS	42.0NS
22	44.0NS	38.0NS	34.0NS
23	42.0NS	36.0NS	32.0NS
25	54.0NS	50.0NS	42.0NS
26	40.0NS	36.0NS	32.0NS
27	44.0NS	38.0NS	34.0NS
28	44.0NS	40.0NS	36.0NS
30	44.0NS	40.0NS	36.0NS
31	36.0NS	32.0NS	28.0NS
33	52.0NS	44.0NS	40.0NS
34	44.0NS	40.0NS	36.0NS
35	46.0NS	42.0NS	38.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	45.2NS	40.0NS	35.8NS
STD DEV	5.84NS	4.84NS	3.94NS
MEDIAN	44.0NS	40.0NS	36.0NS
MIN VALUE	34.0NS	32.0NS	28.0NS
MAX VALUE	54.0NS	50.0NS	42.0NS
NUMBER	27	27	27

POST 2000HR DATA

ADDRESS SETUP TIME (TAS) AT -40 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	14.0NS	12.0NS	12.0NS
5	26.0NS	18.0NS	16.0NS
6	82.0NS *	36.0NS	26.0NS
7	26.0NS	18.0NS	16.0NS
8	66.0NS	26.0NS	20.0NS
9	38.0NS	22.0NS	18.0NS
10	28.0NS	18.0NS	16.0NS
11	48.0NS	24.0NS	18.0NS
12	10.0NS	10.0NS	10.0NS
13	38.0NS	20.0NS	16.0NS
14	40.0NS	22.0NS	18.0NS
15	12.0NS	10.0NS	12.0NS
16	78.0NS *	34.0NS	24.0NS
17	32.0NS	22.0NS	18.0NS
18	26.0NS	18.0NS	16.0NS
19	62.0NS	30.0NS	22.0NS
20	28.0NS	18.0NS	16.0NS
21	38.0NS	24.0NS	22.0NS
22	74.0NS *	32.0NS	24.0NS
23	36.0NS	22.0NS	18.0NS
25	26.0NS	18.0NS	18.0NS
26	34.0NS	20.0NS	16.0NS
27	32.0NS	22.0NS	18.0NS
28	56.0NS	26.0NS	20.0NS
30	22.0NS	16.0NS	16.0NS
31	34.0NS	20.0NS	18.0NS
33	32.0NS	20.0NS	18.0NS
34	90.0NS *	58.0NS	44.0NS
35	10.0NS	10.0NS	12.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	40.7NS	22.8NS	18.9NS
STD DEV	21.4NS	9.40NS	6.07NS
MEDIAN	34.0NS	22.0NS	18.0NS
MIN VALUE	10.0NS	10.0NS	10.0NS
MAX VALUE	90.0NS	58.0NS	44.0NS
NUMBER	27	27	27

POST 2000HR DATA

ADDRESS HOLD TIME (TAH) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	-2.00NS	0.00 S	4.00NS
5	-4.00NS	0.00 S	4.00NS
6	-4.00NS	2.00NS	6.00NS
7	-2.00NS	2.00NS	6.00NS
8	-2.00NS	2.00NS	6.00NS
9	0.00 S	4.00NS	6.00NS
10	-4.00NS	0.00 S	4.00NS
11	-2.00NS	2.00NS	6.00NS
12	-2.00NS	2.00NS	4.00NS
13	-4.00NS	0.00 S	4.00NS
14	-6.00NS	0.00 S	4.00NS
15	0.00 S	2.00NS	4.00NS
16	-2.00NS	2.00NS	6.00NS
17	-6.00NS	0.00 S	4.00NS
18	-4.00NS	0.00 S	4.00NS
19	-2.00NS	2.00NS	6.00NS
20	-2.00NS	2.00NS	6.00NS
21	-6.00NS	0.00 S	6.00NS
22	-4.00NS	2.00NS	6.00NS
23	-2.00NS	2.00NS	6.00NS
25	-6.00NS	0.00 S	4.00NS
26	-2.00NS	2.00NS	4.00NS
27	-2.00NS	2.00NS	6.00NS
28	-4.00NS	0.00 S	4.00NS
30	-2.00NS	2.00NS	4.00NS
31	-2.00NS	2.00NS	6.00NS
33	-4.00NS	0.00 S	4.00NS
34	-2.00NS	2.00NS	4.00NS
35	-2.00NS	0.00 S	2.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-2.96NS	1.33NS	4.89NS
STD DEV	1.67NS	1.09NS	1.13NS
MEDIAN	-2.00NS	2.00NS	4.00NS
MIN VALUE	-6.00NS	0.00 S	2.00NS
MAX VALUE	0.00 S	4.00NS	6.00NS
NUMBER	27	27	27

POST 2000HR DATA

CHIP ENABLE TO WRITE TIME (TWS) AT -40 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	44.0NS	38.0NS	30.0NS
5	54.0NS	44.0NS	38.0NS
6	46.0NS	40.0NS	34.0NS
7	38.0NS	34.0NS	30.0NS
8	42.0NS	36.0NS	32.0NS
9	38.0NS	30.0NS	26.0NS
10	54.0NS	46.0NS	38.0NS
11	40.0NS	34.0NS	26.0NS
12	48.0NS	44.0NS	40.0NS
13	42.0NS	36.0NS	26.0NS
14	54.0NS	44.0NS	38.0NS
15	42.0NS	38.0NS	34.0NS
16	46.0NS	42.0NS	34.0NS
17	54.0NS	46.0NS	38.0NS
18	56.0NS	46.0NS	42.0NS
19	50.0NS	44.0NS	38.0NS
20	44.0NS	38.0NS	32.0NS
21	58.0NS	50.0NS	40.0NS
22	44.0NS	38.0NS	32.0NS
23	42.0NS	36.0NS	30.0NS
25	54.0NS	48.0NS	42.0NS
26	40.0NS	36.0NS	30.0NS
27	44.0NS	38.0NS	32.0NS
28	48.0NS	38.0NS	34.0NS
30	46.0NS	40.0NS	34.0NS
31	40.0NS	34.0NS	30.0NS
33	54.0NS	46.0NS	34.0NS
34	46.0NS	40.0NS	34.0NS
35	46.0NS	42.0NS	38.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	46.5NS	40.1NS	34.0NS
STD DEV	5.75NS	4.93NS	4.52NS
MEDIAN	46.0NS	40.0NS	34.0NS
MIN VALUE	38.0NS	30.0NS	26.0NS
MAX VALUE	58.0NS	50.0NS	42.0NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 2000HR DATA

READ CYCLE TIME (TRC) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	115.NS	100.NS	100.NS
5	140.NS	120.NS	100.NS
6	195.NS	140.NS	110.NS
7	120.NS	100.NS	100.NS
8	165.NS	115.NS	100.NS
9	125.NS	100.NS	100.NS
10	145.NS	110.NS	100.NS
11	135.NS	105.NS	100.NS
12	100.NS	100.NS	100.NS
13	155.NS	115.NS	100.NS
14	160.NS	120.NS	105.NS
15	100.NS	100.NS	100.NS
16	175.NS	125.NS	105.NS
17	160.NS	120.NS	105.NS
18	140.NS	110.NS	100.NS
19	160.NS	115.NS	105.NS
20	130.NS	110.NS	100.NS
21	190.NS	150.NS	125.NS
22	160.NS	125.NS	105.NS
23	130.NS	105.NS	100.NS
25	155.NS	125.NS	110.NS
26	135.NS	105.NS	100.NS
27	145.NS	115.NS	100.NS
28	165.NS	125.NS	105.NS
30	130.NS	105.NS	100.NS
31	120.NS	100.NS	100.NS
33	155.NS	115.NS	105.NS
34	130.NS	105.NS	100.NS
35	100.NS	100.NS	100.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	144.NS	113.NS	103.NS
STD DEV	24.5NS	12.4NS	5.32NS
MEDIAN	145.NS	110.NS	100.NS
MIN VALUE	100.NS	100.NS	100.NS
MAX VALUE	195.NS	150.NS	125.NS
NUMBER	27	27	27

POST 2000HR DATA

WRITE CYCLE TIME (TWC) AT -40 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	80.0NS	80.0NS	80.0NS
5	84.0NS	80.0NS	80.0NS
6	140.NS	86.0NS	80.0NS
7	80.0NS	80.0NS	80.0NS
8	116.NS	80.0NS	80.0NS
9	82.0NS	80.0NS	80.0NS
10	90.0NS	80.0NS	80.0NS
11	98.0NS	80.0NS	80.0NS
12	80.0NS	80.0NS	80.0NS
13	88.0NS	80.0NS	80.0NS
14	102.NS	80.0NS	80.0NS
15	80.0NS	80.0NS	80.0NS
16	133.NS	86.0NS	80.0NS
17	96.0NS	80.0NS	80.0NS
18	90.0NS	80.0NS	80.0NS
19	119.NS	84.0NS	80.0NS
20	82.0NS	80.0NS	80.0NS
21	102.NS	84.0NS	80.0NS
22	128.NS	80.0NS	80.0NS
23	88.0NS	80.0NS	80.0NS
25	90.0NS	80.0NS	80.0NS
26	84.0NS	80.0NS	80.0NS
27	86.0NS	80.0NS	80.0NS
28	110.NS	80.0NS	80.0NS
30	80.0NS	80.0NS	80.0NS
31	80.0NS	80.0NS	80.0NS
33	94.0NS	80.0NS	80.0NS
34	144.NS	108.NS	90.0NS
35	80.0NS	80.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	97.9NS	81.8NS	80.4NS
STD DEV	19.4NS	5.45NS	1.89NS
MEDIAN	90.0NS	80.0NS	80.0NS
MIN VALUE	80.0NS	80.0NS	80.0NS
MAX VALUE	144.NS	108.NS	90.0NS
NUMBER	27	27	27

POST 2000HR DATA

CHIP ENABLE TIME (TEN) AT -40 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	24.0NS	22.0NS	18.0NS
5	28.0NS	24.0NS	22.0NS
6	30.0NS	26.0NS	22.0NS
7	24.0NS	20.0NS	18.0NS
8	26.0NS	22.0NS	20.0NS
9	24.0NS	20.0NS	18.0NS
10	26.0NS	24.0NS	20.0NS
11	24.0NS	20.0NS	18.0NS
12	22.0NS	20.0NS	18.0NS
13	26.0NS	24.0NS	22.0NS
14	32.0NS	26.0NS	24.0NS
15	24.0NS	20.0NS	18.0NS
16	26.0NS	22.0NS	20.0NS
17	30.0NS	26.0NS	24.0NS
18	26.0NS	24.0NS	20.0NS
19	26.0NS	22.0NS	20.0NS
20	24.0NS	22.0NS	20.0NS
21	36.0NS	32.0NS	28.0NS
22	30.0NS	24.0NS	22.0NS
23	24.0NS	22.0NS	20.0NS
25	30.0NS	26.0NS	24.0NS
26	24.0NS	22.0NS	18.0NS
27	28.0NS	24.0NS	22.0NS
28	28.0NS	24.0NS	22.0NS
30	24.0NS	22.0NS	20.0NS
31	24.0NS	22.0NS	20.0NS
33	28.0NS	24.0NS	22.0NS
34	26.0NS	22.0NS	20.0NS
35	24.0NS	22.0NS	18.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	26.5NS	23.1NS	20.7NS
STD DEV	3.11NS	2.57NS	2.37NS
MEDIAN	26.0NS	22.0NS	20.0NS
MIN VALUE	22.0NS	20.0NS	18.0NS
MAX VALUE	36.0NS	32.0NS	28.0NS
NUMBER	27	27	27

POST 2000HR DATA

OUTPUT VOLTAGE LOW (VCL) AT -40 C

SERIAL NO.	
4	85.0MV
5	100.MV
6	120.MV
7	100.MV
8	105.MV
9	85.0MV
10	95.0MV
11	90.0MV
12	80.0MV
13	105.MV
14	120.MV
15	95.0MV
16	100.MV
17	110.MV
18	95.0MV
19	100.MV
20	95.0MV
21	140.MV
22	105.MV
23	95.0MV
25	110.MV
26	90.0MV
27	110.MV
28	110.MV
30	90.0MV
31	90.0MV
33	100.MV
34	95.0MV
35	90.0MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	101.MV
STD DEV	12.4MV
MEDIAN	100.MV
MIN VALUE	80.0MV
MAX VALUE	140.MV
NUMBER	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 2000HR DATA

OUTPUT VOLTAGE HIGH (VCH1) AT -40 C

SERIAL NO.	
4	4.41 V
5	4.40 V
6	4.39 V
7	4.41 V
8	4.40 V
9	4.42 V
10	4.40 V
11	4.41 V
12	4.41 V
13	4.40 V
14	4.39 V
15	4.40 V
16	4.40 V
17	4.39 V
18	4.40 V
19	4.40 V
20	4.41 V
21	4.38 V
22	4.40 V
23	4.41 V
25	4.38 V
26	4.41 V
27	4.40 V
28	4.40 V
30	4.40 V
31	4.41 V
33	4.40 V
34	4.40 V
35	4.40 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.00 V
MEAN	4.40 V
STD DEV	9.14MV
MEDIAN	4.40 V
MIN VALUE	4.38 V
MAX VALUE	4.42 V
NUMBER	27

POST 2000HR DATA

OUTPUT VOLTAGE HIGH (VOH2) AT -40 C

SERIAL NO.	
4	4.91 V
5	4.90 V
6	4.90 V
7	4.90 V
8	4.91 V
9	4.91 V
10	4.91 V
11	4.91 V
12	4.91 V
13	4.90 V
14	4.89 V
15	4.90 V
16	4.90 V
17	4.90 V
18	4.90 V
19	4.91 V
20	4.91 V
21	4.88 V
22	4.90 V
23	4.91 V
25	4.89 V
26	4.91 V
27	4.91 V
28	4.90 V
30	4.91 V
31	4.91 V
33	4.90 V
34	4.90 V
35	4.91 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.91 V
STD DEV	7.37MV
MEDIAN	4.90 V
MIN VALUE	4.88 V
MAX VALUE	4.91 V
NUMBER	27

POST 2000HR DATA

AVERAGE INPUT LOW CURRENT (IIL) AT -40 C

SERIAL NO.	
4	2.12NA
5	2.97NA
6	-1.90NA
7	-677.PA
8	2.96NA
9	2.62NA
10	1.49NA
11	946.PA
12	519.PA
13	-515.PA
14	-504.PA
15	-2.71NA
16	-2.69NA
17	-2.53NA
18	2.97NA
19	3.28NA
20	3.10NA
21	3.23NA
22	-3.02NA
23	2.47NA
25	-2.78NA
26	2.92NA
27	2.80NA
28	3.20NA
30	-2.34NA
31	-2.96NA
33	2.86NA
34	-2.98NA
35	2.20NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	443.PA
STD DEV	2.47NA
MEDIAN	946.PA
MIN VALLE	-3.02NA
MAX VALUE	3.28NA
NUMBER	27

POST 2000HR DATA

WORST CASE INPUT LOW CURRENT (IIL) AT -40 C

SERIAL NO.	
4	4.00NA
5	5.05NA
6	-4.25NA
7	4.95NA
8	6.20NA
9	5.65NA
10	3.45NA
11	2.80NA
12	1.90NA
13	4.10NA
14	4.25NA
15	-4.45NA
16	-3.65NA
17	-3.60NA
18	4.05NA
19	4.15NA
20	4.40NA
21	4.00NA
22	-3.35NA
23	4.05NA
25	-3.35NA
26	4.05NA
27	4.00NA
28	4.05NA
30	-3.25NA
31	-3.45NA
33	4.00NA
34	-3.40NA
35	3.45NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	1.51NA
STD DEV	3.72NA
MEDIAN	4.00NA
MIN VALUE	-4.45NA
MAX VALUE	6.20NA
NUMBER	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 2000HR DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT -40 C

SERIAL NO.	
4	842.PA
5	1.04NA
6	877.PA
7	1.08NA
8	1.01NA
9	488.PA
10	1.07NA
11	1.12NA
12	504.PA
13	1.19NA
14	1.26NA
15	1.04NA
16	823.PA
17	931.PA
18	931.PA
19	827.PA
20	773.PA
21	788.PA
22	1.02NA
23	5.84NA
25	927.PA
26	738.PA
27	781.PA
28	685.PA
30	692.PA
31	946.PA
33	673.PA
34	1.15NA
35	1.00NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	1.08NA
STD DEV	953.PA
MEDIAN	931.PA
MIN VALUE	488.PA
MAX VALUE	5.84NA
NUMBER	27

POST 2000HR DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT -40 C

SERIAL NO.	
4	5.85NA
5	4.15NA
6	4.45NA
7	4.20NA
8	4.45NA
9	4.05NA
10	4.70NA
11	5.70NA
12	3.85NA
13	4.90NA
14	5.10NA
15	4.40NA
16	4.65NA
17	4.15NA
18	4.20NA
19	4.25NA
20	4.35NA
21	4.30NA
22	4.65NA
23	72.0NA
25	4.70NA
26	4.25NA
27	4.10NA
28	4.30NA
30	4.35NA
31	4.45NA
33	4.30NA
34	4.20NA
35	4.25NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	6.93NA
STD DEV	12.8NA
MEDIAN	4.35NA
MIN VALUE	3.85NA
MAX VALUE	72.0NA
NUMBER	27

POST 2000HR DATA

SUPPLY CURRENT (ICC1B0) AT -40 C

SERIAL NO.	
4	990.NA
5	331.NA
6	6.70UA
7	7.00NA
8	5.43UA
9	1.34UA
10	386.NA
11	15.0NA
12	28.0NA
13	22.5NA
14	8.16UA
15	56.0NA
16	21.0NA
17	4.50NA
18	49.5NA
19	29.5NA
20	19.5NA
21	27.5NA
22	74.5NA
23	1.96UA
25	81.0NA
26	16.0NA
27	192.NA
28	136.NA
30	7.80UA
31	64.5NA
33	13.2UA
34	160.UA
35	31.0NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	7.61UA
STD DEV	30.0UA
MEDIAN	64.5NA
MIN VALUE	4.50NA
MAX VALUE	160.UA
NUMBER	27

POST 2000HR DATA

SUPPLY CURRENT (ICC1B1) AT -40 C

SERIAL NO.	
4	60.4UA
5	344.NA
6	11.7UA
7	14.2UA
8	5.51UA
9	5.17UA
10	365.NA
11	12.5NA
12	1.27UA
13	36.0NA
14	90.0NA
15	109.NA
16	26.5NA
17	19.5NA
18	46.0NA
19	29.5NA
20	24.0NA
21	29.5NA
22	67.0NA
23	10.0UA
25	7.09UA
26	44.0NA
27	191.NA
28	44.0NA
30	8.34UA
31	14.4UA
33	1.48MA *
34	160.UA
35	84.5NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	63.7UA
STD DEV	279.UA
MEDIAN	109.NA
MIN VALUE	12.5NA
MAX VALUE	1.48MA
NUMBER	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 2000HR DATA

SUPPLY CURRENT (ICC280) AT -40 C

SERIAL NO.	
4	1.00UA
5	123.UA
6	6.58UA
7	4.50NA
8	5.54UA
9	1.47UA
10	384.NA
11	13.5NA
12	573.NA
13	2.44UA
14	8.18UA
15	85.0NA
16	21.0NA
17	5.02UA
18	44.0NA
19	33.0NA
20	26.0NA
21	17.5NA
22	523.UA
23	778.NA
25	201.NA
26	70.0NA
27	595.NA
28	142.NA
30	220.NA
31	8.50NA
33	48.4UA
34	206.UA
35	74.5NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	30.0UA
STD DEV	104.UA
MEDIAN	220.NA
MIN VALLE	4.50NA
MAX VALLE	523.UA
NUMBER	27

POST 2000HR DATA

SUPPLY CURRENT (ICC2B1) AT -40 C

SERIAL NO.	
4	69.0UA
5	122.UA
6	11.4UA
7	14.1UA
8	5.54UA
9	5.30UA
10	355.NA
11	5.00NA
12	93.5NA
13	2.44UA
14	89.0NA
15	62.5NA
16	28.0NA
17	5.00UA
18	36.5NA
19	25.0NA
20	14.5NA
21	6.50NA
22	523.UA
23	8.97UA
25	7.38UA
26	43.0NA
27	582.NA
28	30.0NA
30	233.NA
31	14.4UA
33	1.56MA *
34	206.UA
35	19.5NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	87.6UA
STD DEV	307.UA
MEDIAN	355.NA
MIN VALUE	5.00NA
MAX VALUE	1.56MA
NUMBER	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 2000HR DATA

OUTPUT LEAKAGE CURRENT (IOL) AT -40 C

SERIAL NO.	
4	25.3NA
5	5.95NA
6	-50.0PA
7	-1.85NA
8	3.55NA
9	3.55NA
10	1.85NA
11	3.25NA
12	1.70NA
13	-1.85NA
14	250.PA
15	-1.15NA
16	-1.80NA
17	-300.PA
18	3.65NA
19	4.55NA
20	4.55NA
21	4.95NA
22	-1.70NA
23	2.95NA
25	-700.PA
26	3.75NA
27	2.95NA
28	4.90NA
30	9.75NA
31	-1.95NA
33	3.75NA
34	8.10NA
35	3.00NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	2.21NA
STD DEV	3.03NA
MEDIAN	2.95NA
MIN VALUE	-1.95NA
MAX VALUE	9.75NA
NUMBER	27

POST 2000HR DATA

ADDRESS ACCESS TIME (TAA) AT -55 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	120.NS	95.0NS	85.0NS
5	185.NS	130.NS	105.NS
6	345.NS *	185.NS	135.NS
7	145.NS	110.NS	95.0NS
8	270.NS *	150.NS	115.NS
9	175.NS	115.NS	95.0NS
10	180.NS	125.NS	105.NS
11	205.NS	130.NS	100.NS
12	90.0NS	80.0NS	65.0NS
13	215.NS	135.NS	105.NS
14	235.NS	155.NS	120.NS
15	100.NS	85.0NS	80.0NS
16	310.NS *	160.NS	120.NS
17	210.NS	140.NS	115.NS
18	180.NS	130.NS	105.NS
19	255.NS *	150.NS	115.NS
20	170.NS	120.NS	100.NS
21	255.NS *	175.NS	140.NS
22	265.NS *	150.NS	120.NS
23	180.NS	125.NS	100.NS
25	175.NS	130.NS	115.NS
26	190.NS	125.NS	100.NS
27	190.NS	130.NS	110.NS
28	245.NS	155.NS	120.NS
30	155.NS	115.NS	95.0NS
31	155.NS	110.NS	95.0NS
33	220.NS	155.NS	130.NS
34	250.NS	180.NS	145.NS
35	100.NS	85.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	202.NS	134.NS	108.NS
STD DEV	60.1NS	26.7NS	18.0NS
MEDIAN	190.NS	130.NS	105.NS
MIN VALLE	90.0NS	80.0NS	65.0NS
MAX VALLE	345.NS	185.NS	145.NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 2000HR DATA

DATA SETUP TIME (TDS) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	16.0NS	14.0NS	14.0NS
5	20.0NS	16.0NS	14.0NS
6	16.0NS	14.0NS	12.0NS
7	10.0NS	10.0NS	12.0NS
8	14.0NS	12.0NS	12.0NS
9	12.0NS	10.0NS	12.0NS
10	20.0NS	16.0NS	14.0NS
11	14.0NS	12.0NS	12.0NS
12	14.0NS	12.0NS	12.0NS
13	16.0NS	14.0NS	14.0NS
14	20.0NS	16.0NS	14.0NS
15	12.0NS	10.0NS	10.0NS
16	14.0NS	14.0NS	16.0NS
17	22.0NS	16.0NS	14.0NS
18	22.0NS	18.0NS	16.0NS
19	16.0NS	14.0NS	16.0NS
20	14.0NS	12.0NS	12.0NS
21	20.0NS	16.0NS	16.0NS
22	14.0NS	12.0NS	12.0NS
23	12.0NS	12.0NS	12.0NS
25	28.0NS	22.0NS	18.0NS
26	14.0NS	12.0NS	12.0NS
27	16.0NS	14.0NS	14.0NS
28	16.0NS	14.0NS	14.0NS
30	16.0NS	14.0NS	14.0NS
31	12.0NS	12.0NS	12.0NS
33	20.0NS	16.0NS	14.0NS
34	14.0NS	14.0NS	14.0NS
35	14.0NS	12.0NS	12.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	16.0NS	13.7NS	13.4NS
STD DEV	3.93NS	2.59NS	1.79NS
MEDIAN	14.0NS	14.0NS	14.0NS
MIN VALUE	10.0NS	10.0NS	10.0NS
MAX VALUE	28.0NS	22.0NS	18.0NS
NUMBER	27	27	27

POST 2000HR DATA

DATA HOLD TIME (TDH) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	8.00NS	10.0NS	12.0NS
5	12.0NS	14.0NS	18.0NS
6	14.0NS	18.0NS	20.0NS
7	12.0NS	14.0NS	16.0NS
8	12.0NS	14.0NS	18.0NS
9	12.0NS	14.0NS	16.0NS
10	10.0NS	12.0NS	14.0NS
11	10.0NS	14.0NS	16.0NS
12	8.00NS	10.0NS	12.0NS
13	10.0NS	12.0NS	14.0NS
14	12.0NS	14.0NS	16.0NS
15	12.0NS	14.0NS	16.0NS
16	14.0NS	16.0NS	20.0NS
17	12.0NS	14.0NS	16.0NS
18	12.0NS	14.0NS	16.0NS
19	14.0NS	16.0NS	20.0NS
20	12.0NS	14.0NS	16.0NS
21	14.0NS	16.0NS	20.0NS
22	12.0NS	14.0NS	18.0NS
23	12.0NS	14.0NS	18.0NS
25	10.0NS	12.0NS	16.0NS
26	10.0NS	12.0NS	16.0NS
27	12.0NS	14.0NS	18.0NS
28	12.0NS	14.0NS	18.0NS
30	10.0NS	12.0NS	14.0NS
31	12.0NS	14.0NS	16.0NS
33	10.0NS	12.0NS	16.0NS
34	10.0NS	12.0NS	14.0NS
35	10.0NS	12.0NS	14.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	11.5NS	13.6NS	16.4NS
STD DEV	1.50NS	1.64NS	2.06NS
MEDIAN	12.0NS	14.0NS	16.0NS
MIN VALUE	8.00NS	10.0NS	12.0NS
MAX VALUE	14.0NS	18.0NS	20.0NS
NUMBER	27	27	27

POST 2000HR DATA

WRITE PULSE WIDTH (TWP) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	44.0NS	34.0NS	34.0NS
5	52.0NS	42.0NS	38.0NS
6	50.0NS	40.0NS	36.0NS
7	40.0NS	36.0NS	32.0NS
8	40.0NS	36.0NS	32.0NS
9	36.0NS	32.0NS	26.0NS
10	54.0NS	44.0NS	40.0NS
11	40.0NS	34.0NS	32.0NS
12	48.0NS	44.0NS	40.0NS
13	40.0NS	36.0NS	32.0NS
14	54.0NS	44.0NS	40.0NS
15	40.0NS	36.0NS	34.0NS
16	46.0NS	36.0NS	36.0NS
17	54.0NS	44.0NS	40.0NS
18	56.0NS	46.0NS	42.0NS
19	48.0NS	44.0NS	40.0NS
20	44.0NS	38.0NS	34.0NS
21	58.0NS	48.0NS	42.0NS
22	44.0NS	38.0NS	34.0NS
23	40.0NS	36.0NS	32.0NS
25	54.0NS	50.0NS	42.0NS
26	40.0NS	36.0NS	32.0NS
27	44.0NS	38.0NS	34.0NS
28	44.0NS	40.0NS	36.0NS
30	44.0NS	40.0NS	36.0NS
31	40.0NS	34.0NS	32.0NS
33	54.0NS	44.0NS	40.0NS
34	44.0NS	40.0NS	36.0NS
35	46.0NS	42.0NS	38.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	46.0NS	39.9NS	35.9NS
STD DEV	6.09NS	4.55NS	4.02NS
MEDIAN	44.0NS	40.0NS	36.0NS
MIN VALUE	36.0NS	32.0NS	26.0NS
MAX VALUE	58.0NS	50.0NS	42.0NS
NUMBER	27	27	27

POST 2000HR DATA

ADDRESS SETUP TIME (TAS) AT -55 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	16.0NS	12.0NS	12.0NS
5	32.0NS	20.0NS	18.0NS
6	110.NS *	42.0NS	26.0NS
7	28.0NS	18.0NS	16.0NS
8	80.0NS *	30.0NS	22.0NS
9	38.0NS	22.0NS	18.0NS
10	32.0NS	20.0NS	16.0NS
11	60.0NS	26.0NS	20.0NS
12	10.0NS	10.0NS	10.0NS
13	50.0NS	22.0NS	18.0NS
14	48.0NS	24.0NS	20.0NS
15	12.0NS	10.0NS	12.0NS
16	96.0NS *	36.0NS	24.0NS
17	36.0NS	22.0NS	18.0NS
18	30.0NS	20.0NS	18.0NS
19	74.0NS *	32.0NS	24.0NS
20	34.0NS	20.0NS	18.0NS
21	46.0NS	26.0NS	24.0NS
22	74.0NS *	32.0NS	24.0NS
23	38.0NS	22.0NS	18.0NS
25	28.0NS	20.0NS	18.0NS
26	42.0NS	22.0NS	18.0NS
27	36.0NS	22.0NS	18.0NS
28	64.0NS	28.0NS	22.0NS
30	24.0NS	16.0NS	16.0NS
31	36.0NS	20.0NS	18.0NS
33	38.0NS	22.0NS	18.0NS
34	102.NS *	64.0NS	46.0NS
35	10.0NS	10.0NS	12.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	47.3NS	24.4NS	19.7NS
STD DEV	26.5NS	10.6NS	6.39NS
MEDIAN	38.0NS	22.0NS	18.0NS
MIN VALUE	10.0NS	10.0NS	10.0NS
MAX VALUE	110.NS	64.0NS	46.0NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 2000HR DATA

ADDRESS HOLD TIME (TAH) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	-2.00NS	0.00 S	4.00NS
5	-4.00NS	0.00 S	4.00NS
6	-4.00NS	2.00NS	6.00NS
7	-2.00NS	2.00NS	4.00NS
8	-4.00NS	0.00 S	4.00NS
9	0.00 S	4.00NS	6.00NS
10	-4.00NS	0.00 S	4.00NS
11	-2.00NS	2.00NS	6.00NS
12	0.00 S	2.00NS	4.00NS
13	-4.00NS	0.00 S	4.00NS
14	-6.00NS	0.00 S	4.00NS
15	0.00 S	2.00NS	4.00NS
16	-2.00NS	2.00NS	6.00NS
17	-6.00NS	-2.00NS	2.00NS
18	-4.00NS	0.00 S	4.00NS
19	-2.00NS	2.00NS	4.00NS
20	-2.00NS	2.00NS	4.00NS
21	-6.00NS	0.00 S	6.00NS
22	-4.00NS	0.00 S	4.00NS
23	-2.00NS	2.00NS	6.00NS
25	-6.00NS	0.00 S	4.00NS
26	-2.00NS	2.00NS	4.00NS
27	-2.00NS	2.00NS	6.00NS
28	-4.00NS	0.00 S	4.00NS
30	-2.00NS	2.00NS	4.00NS
31	-2.00NS	2.00NS	4.00NS
33	-4.00NS	0.00 S	4.00NS
34	-2.00NS	2.00NS	4.00NS
35	-2.00NS	0.00 S	2.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-2.96NS	1.11NS	4.37NS
STD DEV	1.75NS	1.26NS	1.09NS
MEDIAN	-2.00NS	2.00NS	4.00NS
MIN VALLE	-6.00NS	-2.00NS	2.00NS
MAX VALLE	0.00 S	4.00NS	6.00NS
NUMBER	27	27	27

POST 2000HR DATA

CHIP ENABLE TO WRITE TIME (TWS) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	44.0NS	34.0NS	30.0NS
5	54.0NS	42.0NS	38.0NS
6	46.0NS	42.0NS	34.0NS
7	40.0NS	34.0NS	26.0NS
8	42.0NS	36.0NS	32.0NS
9	34.0NS	34.0NS	26.0NS
10	54.0NS	44.0NS	38.0NS
11	40.0NS	34.0NS	30.0NS
12	48.0NS	44.0NS	40.0NS
13	42.0NS	36.0NS	26.0NS
14	54.0NS	46.0NS	38.0NS
15	42.0NS	38.0NS	34.0NS
16	46.0NS	40.0NS	34.0NS
17	54.0NS	46.0NS	38.0NS
18	58.0NS	46.0NS	42.0NS
19	48.0NS	42.0NS	38.0NS
20	44.0NS	38.0NS	32.0NS
21	58.0NS	46.0NS	40.0NS
22	44.0NS	34.0NS	32.0NS
23	42.0NS	36.0NS	26.0NS
25	54.0NS	50.0NS	42.0NS
26	40.0NS	36.0NS	26.0NS
27	44.0NS	38.0NS	32.0NS
28	46.0NS	38.0NS	34.0NS
30	46.0NS	40.0NS	30.0NS
31	40.0NS	34.0NS	26.0NS
33	56.0NS	46.0NS	34.0NS
34	46.0NS	40.0NS	30.0NS
35	46.0NS	42.0NS	38.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	46.4NS	40.0NS	33.3NS
STD DEV	6.12NS	4.65NS	5.14NS
MEDIAN	46.0NS	40.0NS	34.0NS
MIN VALUE	34.0NS	34.0NS	26.0NS
MAX VALUE	58.0NS	50.0NS	42.0NS
NUMBER	27	27	27

POST 2000HR DATA

READ CYCLE TIME (TRC) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	115.NS	100.NS	100.NS
5	150.NS	115.NS	100.NS
6	210.NS	140.NS	115.NS
7	120.NS	100.NS	100.NS
8	165.NS	125.NS	105.NS
9	130.NS	105.NS	100.NS
10	145.NS	115.NS	100.NS
11	125.NS	110.NS	100.NS
12	100.NS	100.NS	100.NS
13	165.NS	115.NS	100.NS
14	160.NS	125.NS	110.NS
15	100.NS	100.NS	100.NS
16	175.NS	125.NS	105.NS
17	165.NS	125.NS	105.NS
18	145.NS	110.NS	100.NS
19	165.NS	120.NS	105.NS
20	135.NS	105.NS	100.NS
21	195.NS	150.NS	120.NS
22	170.NS	125.NS	105.NS
23	140.NS	105.NS	100.NS
25	155.NS	125.NS	110.NS
26	135.NS	105.NS	100.NS
27	150.NS	115.NS	100.NS
28	175.NS	120.NS	105.NS
30	135.NS	110.NS	100.NS
31	125.NS	100.NS	100.NS
33	160.NS	120.NS	105.NS
34	140.NS	105.NS	100.NS
35	100.NS	100.NS	100.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	148.NS	115.NS	103.NS
STD DEV	26.7NS	12.5NS	5.09NS
MEDIAN	145.NS	115.NS	100.NS
MIN VALUE	100.NS	100.NS	100.NS
MAX VALUE	210.NS	150.NS	120.NS
NUMBER	27	27	27

POST 2000HR DATA

WRITE CYCLE TIME (TWC) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	80.0NS	80.0NS	80.0NS
5	94.0NS	80.0NS	80.0NS
6	170.NS	92.0NS	80.0NS
7	80.0NS	80.0NS	80.0NS
8	129.NS	80.0NS	80.0NS
9	84.0NS	80.0NS	80.0NS
10	96.0NS	80.0NS	80.0NS
11	110.NS	80.0NS	80.0NS
12	80.0NS	80.0NS	80.0NS
13	100.NS	80.0NS	80.0NS
14	112.NS	80.0NS	80.0NS
15	80.0NS	80.0NS	80.0NS
16	152.NS	82.0NS	80.0NS
17	100.NS	80.0NS	80.0NS
18	96.0NS	80.0NS	80.0NS
19	132.NS	86.0NS	80.0NS
20	88.0NS	80.0NS	80.0NS
21	114.NS	84.0NS	80.0NS
22	128.NS	80.0NS	80.0NS
23	88.0NS	80.0NS	80.0NS
25	92.0NS	80.0NS	80.0NS
26	92.0NS	80.0NS	80.0NS
27	90.0NS	80.0NS	80.0NS
28	118.NS	80.0NS	80.0NS
30	80.0NS	80.0NS	80.0NS
31	86.0NS	80.0NS	80.0NS
33	102.NS	80.0NS	80.0NS
34	155.NS	114.NS	92.0NS
35	80.0NS	80.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	105.NS	82.1NS	80.4NS
STD DEV	24.6NS	6.75NS	2.27NS
MEDIAN	96.0NS	80.0NS	80.0NS
MIN VALUE	80.0NS	80.0NS	80.0NS
MAX VALUE	170.NS	114.NS	92.0NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 2000HR DATA

CHIP ENABLE TIME (TEN) AT -55 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	24.0NS	20.0NS	18.0NS
5	26.0NS	24.0NS	20.0NS
6	30.0NS	26.0NS	22.0NS
7	22.0NS	20.0NS	18.0NS
8	26.0NS	22.0NS	20.0NS
9	24.0NS	20.0NS	18.0NS
10	26.0NS	24.0NS	20.0NS
11	22.0NS	20.0NS	18.0NS
12	22.0NS	20.0NS	18.0NS
13	26.0NS	24.0NS	20.0NS
14	30.0NS	26.0NS	24.0NS
15	22.0NS	20.0NS	18.0NS
16	26.0NS	22.0NS	20.0NS
17	30.0NS	26.0NS	22.0NS
18	26.0NS	24.0NS	20.0NS
19	26.0NS	22.0NS	20.0NS
20	24.0NS	22.0NS	18.0NS
21	36.0NS	30.0NS	26.0NS
22	28.0NS	24.0NS	22.0NS
23	24.0NS	22.0NS	18.0NS
25	28.0NS	24.0NS	22.0NS
26	24.0NS	20.0NS	18.0NS
27	26.0NS	24.0NS	22.0NS
28	28.0NS	24.0NS	22.0NS
30	24.0NS	22.0NS	18.0NS
31	24.0NS	20.0NS	18.0NS
33	28.0NS	24.0NS	22.0NS
34	24.0NS	22.0NS	20.0NS
35	24.0NS	20.0NS	18.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	25.9NS	22.7NS	20.1NS
STD DEV	3.10NS	2.44NS	2.14NS
MEDIAN	26.0NS	22.0NS	20.0NS
MIN VALUE	22.0NS	20.0NS	18.0NS
MAX VALUE	36.0NS	30.0NS	26.0NS
NUMBER	27	27	27

POST 2000HR DATA

OUTPUT VOLTAGE LOW (VCL) AT -55 C

SERIAL NO.	
4	80.0MV
5	100.MV
6	120.MV
7	100.MV
8	100.MV
9	85.0MV
10	90.0MV
11	85.0MV
12	80.0MV
13	100.MV
14	120.MV
15	90.0MV
16	100.MV
17	110.MV
18	90.0MV
19	95.0MV
20	95.0MV
21	135.MV
22	105.MV
23	90.0MV
25	105.MV
26	90.0MV
27	110.MV
28	105.MV
30	90.0MV
31	90.0MV
33	100.MV
34	95.0MV
35	85.0MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	98.5MV
STD DEV	12.3MV
MEDIAN	95.0MV
MIN VALUE	80.0MV
MAX VALUE	135.MV
NUMBER	27

POST 2000HR DATA

OUTPUT VOLTAGE HIGH (VCH1) AT -55 C

SERIAL NO.	
4	4.41 V
5	4.41 V
6	4.40 V
7	4.41 V
8	4.41 V
9	4.42 V
10	4.41 V
11	4.41 V
12	4.41 V
13	4.40 V
14	4.39 V
15	4.41 V
16	4.41 V
17	4.40 V
18	4.40 V
19	4.41 V
20	4.41 V
21	4.38 V
22	4.40 V
23	4.42 V
25	4.39 V
26	4.42 V
27	4.41 V
28	4.40 V
30	4.41 V
31	4.42 V
33	4.40 V
34	4.41 V
35	4.41 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.60 V
MEAN	4.41 V
STD DEV	8.28MV
MEDIAN	4.41 V
MIN VALLE	4.38 V
MAX VALLE	4.42 V
NUMBER	27

POST 2000HR DATA

OUTPUT VOLTAGE HIGH (VOH2) AT -55 C

SERIAL NO.	
4	4.92 V
5	4.91 V
6	4.91 V
7	4.91 V
8	4.91 V
9	4.92 V
10	4.91 V
11	4.91 V
12	4.91 V
13	4.91 V
14	4.90 V
15	4.91 V
16	4.91 V
17	4.90 V
18	4.91 V
19	4.91 V
20	4.92 V
21	4.89 V
22	4.90 V
23	4.92 V
25	4.90 V
26	4.92 V
27	4.91 V
28	4.91 V
30	4.91 V
31	4.92 V
33	4.91 V
34	4.91 V
35	4.91 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.91 V
STD DEV	6.36MV
MEDIAN	4.91 V
MIN VALUE	4.89 V
MAX VALUE	4.92 V
NUMBER	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 2000HR DATA

AVERAGE INPUT LOW CURRENT (IIL) AT -55 C

SERIAL NO.	
4	-1.23NA
5	3.35NA
6	-1.22NA
7	-2.94NA
8	758.PA
9	-2.03NA
10	2.31NA
11	2.48NA
12	2.58NA
13	-2.21NA
14	-1.14NA
15	-204.PA
16	-2.87NA
17	3.19NA
18	2.55NA
19	-2.67NA
20	3.14NA
21	3.39NA
22	-2.98NA
23	3.05NA
25	2.36NA
26	3.40NA
27	2.80NA
28	2.64NA
30	-2.35NA
31	-3.03NA
33	-2.47NA
34	3.30NA
35	-1.90NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	368.PA
STD DEV	2.54NA
MEDIAN	758.PA
MIN VALUE	-3.03NA
MAX VALUE	3.40NA
NUMBER	27

POST 2000HR DATA

WORST CASE INPUT LOW CURRENT (IIL) AT -55 C

SERIAL NO.	
4	-3.15NA
5	4.05NA
6	-2.65NA
7	-3.40NA
8	2.55NA
9	-3.05NA
10	4.05NA
11	4.05NA
12	3.60NA
13	-3.35NA
14	2.20NA
15	-2.15NA
16	-3.10NA
17	3.85NA
18	3.50NA
19	-3.10NA
20	3.90NA
21	3.70NA
22	-3.35NA
23	3.60NA
25	3.45NA
26	4.00NA
27	3.80NA
28	3.80NA
30	-3.25NA
31	-3.40NA
33	-3.45NA
34	3.70NA
35	-3.20NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	604.PA
STD DEV	3.36NA
MEDIAN	2.55NA
MIN VALUE	-3.45NA
MAX VALUE	4.05NA
NUMBER	27

POST 2000HR DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT -55 C

SERIAL NO.	
4	1.06NA
5	731.PA
6	354.PA
7	1.02NA
8	1.11NA
9	1.17NA
10	508.PA
11	654.PA
12	1.01NA
13	819.PA
14	1.17NA
15	365.PA
16	496.PA
17	846.PA
18	1.05NA
19	685.PA
20	669.PA
21	696.PA
22	992.PA
23	4.95NA
25	1.08NA
26	650.PA
27	800.PA
28	858.PA
30	569.PA
31	1.00NA
33	854.PA
34	796.PA
35	442.PA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	949.PA
STD DEV	819.PA
MEDIAN	819.PA
MIN VALUE	354.PA
MAX VALUE	4.95NA
NUMBER	27

POST 2000HR DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT -55 C

SERIAL NO.	
4	4.00NA
5	4.35NA
6	4.25NA
7	4.70NA
8	4.35NA
9	4.65NA
10	4.25NA
11	4.30NA
12	4.30NA
13	4.80NA
14	4.45NA
15	4.15NA
16	4.10NA
17	4.15NA
18	4.50NA
19	4.35NA
20	4.25NA
21	4.10NA
22	4.75NA
23	58.5NA
25	4.60NA
26	4.30NA
27	4.30NA
28	4.40NA
30	4.35NA
31	4.40NA
33	4.50NA
34	4.20NA
35	4.15NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	6.37NA
STD DEV	10.2NA
MEDIAN	4.35NA
MIN VALUE	4.10NA
MAX VALUE	58.5NA
NUMBER	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 2000HR DATA

SUPPLY CURRENT (ICC1B0) AT -55 C

SERIAL NO.	
4	427.NA
5	246.NA
6	4.97UA
7	-500.PA
8	4.34UA
9	966.NA
10	228.NA
11	7.50NA
12	17.5NA
13	10.0NA
14	8.65UA
15	44.0NA
16	15.0NA
17	9.50NA
18	36.0NA
19	15.5NA
20	14.5NA
21	16.5NA
22	51.0NA
23	2.05UA
25	38.5NA
26	8.50NA
27	55.5NA
28	112.NA
30	8.60UA
31	41.5NA
33	12.0UA
34	162.UA
35	8.00NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	7.57UA
STD DEV	30.5UA
MEDIAN	41.5NA
MIN VALUE	-500.PA
MAX VALUE	162.UA
NUMBER	27

POST 2000HR DATA

SUPPLY CURRENT (ICC1B1) AT -55 C

SERIAL NO.	
4	59.1UA
5	265.NA
6	10.5UA
7	12.8UA
8	4.40UA
9	3.99UA
10	218.NA
11	8.50NA
12	869.NA
13	20.0NA
14	41.5NA
15	77.5NA
16	22.0NA
17	-500.PA
18	29.0NA
19	18.5NA
20	15.5NA
21	16.5NA
22	47.0NA
23	10.3UA
25	6.48UA
26	20.5NA
27	53.5NA
28	30.5NA
30	8.84UA
31	13.1UA
33	1.49MA *
34	162.UA
35	41.5NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	63.7UA
STD DEV	280.UA
MEDIAN	53.5NA
MIN VALUE	-500.PA
MAX VALUE	1.49MA
NUMBER	27

POST 2000HR DATA

SUPPLY CURRENT (ICC280) AT -55 C

SERIAL NO.	
4	412.NA
5	119.UA
6	4.86UA
7	-2.00NA
8	4.41UA
9	1.05UA
10	233.NA
11	12.5NA
12	361.NA
13	2.22UA
14	8.72UA
15	62.5NA
16	16.0NA
17	4.63UA
18	31.0NA
19	14.0NA
20	19.0NA
21	13.0NA
22	522.UA
23	709.NA
25	98.5NA
26	39.0NA
27	464.NA
28	116.NA
30	102.NA
31	-1.00NA
33	47.6UA
34	207.UA
35	30.5NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	29.8UA
STD DEV	104.UA
MEDIAN	116.NA
MIN VALUE	-2.00NA
MAX VALUE	522.UA
NUMBER	27

POST 2000HR DATA

SUPPLY CURRENT (ICC2B1) AT -55 C

SERIAL NO.	
4	68.0UA
5	119.UA
6	9.95UA
7	13.2UA
8	4.47UA
9	4.22UA
10	212.NA
11	4.00NA
12	63.0NA
13	2.23UA
14	43.5NA
15	52.0NA
16	25.0NA
17	4.65UA
18	24.0NA
19	22.0NA
20	9.50NA
21	4.00NA
22	522.UA
23	9.03UA
25	6.82UA
26	24.0NA
27	453.NA
28	22.5NA
30	94.5NA
31	12.9UA
33	1.56MA *
34	207.UA
35	17.5NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	87.5UA
STD DEV	308.UA
MEDIAN	212.NA
MIN VALUE	4.00NA
MAX VALUE	1.56MA
NUMBER	27

POST 2000HR DATA

OUTPUT LEAKAGE CURRENT (IOL) AT -55 C

SERIAL NO.	
4	11.3NA
5	5.30NA
6	700.PA
7	-1.95NA
8	1.25NA
9	300.PA
10	2.40NA
11	2.35NA
12	4.00NA
13	4.65NA
14	4.10NA
15	1.95NA
16	-1.95NA
17	4.35NA
18	4.15NA
19	-1.05NA
20	4.30NA
21	4.75NA
22	-1.65NA
23	4.20NA
25	3.70NA
26	5.05NA
27	2.70NA
28	3.30NA
30	2.90NA
31	-2.25NA
33	-350.PA
34	8.75NA
35	-50.0PA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	2.24NA
STD DEV	2.65NA
MEDIAN	2.70NA
MIN VALUE	-2.25NA
MAX VALUE	8.75NA
NUMBER	27

POST 2000HR DATA

ADDRESS ACCESS TIME (TAA) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	140.NS	120.NS	110.NS
5	155.NS	135.NS	120.NS
6	185.NS	150.NS	135.NS
7	165.NS	140.NS	130.NS
8	165.NS	135.NS	120.NS
9	155.NS	130.NS	120.NS
10	160.NS	135.NS	110.NS
11	150.NS	125.NS	110.NS
12	105.NS	95.0NS	90.0NS
13	160.NS	130.NS	115.NS
14	170.NS	145.NS	130.NS
15	110.NS	100.NS	95.0NS
16	215.NS	165.NS	145.NS
17	165.NS	135.NS	125.NS
18	155.NS	130.NS	120.NS
19	190.NS	145.NS	135.NS
20	145.NS	125.NS	110.NS
21	225.NS	185.NS	165.NS
22	175.NS	145.NS	130.NS
23	155.NS	130.NS	120.NS
25	185.NS	155.NS	140.NS
26	145.NS	120.NS	110.NS
27	150.NS	135.NS	125.NS
28	175.NS	145.NS	130.NS
30	155.NS	130.NS	120.NS
31	145.NS	125.NS	115.NS
33	220.NS	185.NS	170.NS
34	220.NS	100.NS	165.NS
35	115.NS	105.NS	95.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	165.NS	138.NS	125.NS
STD DEV	30.4NS	22.0NS	19.6NS
MEDIAN	160.NS	135.NS	120.NS
MIN VALLE	105.NS	95.0NS	90.0NS
MAX VALLE	225.NS	185.NS	170.NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 2000HR DATA

DATA SETUP TIME (TDS) AT 85 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	24.0NS	20.0NS	20.0NS
5	24.0NS	20.0NS	18.0NS
6	18.0NS	18.0NS	18.0NS
7	14.0NS	14.0NS	20.0NS
8	18.0NS	16.0NS	18.0NS
9	14.0NS	14.0NS	18.0NS
10	24.0NS	22.0NS	20.0NS
11	16.0NS	16.0NS	18.0NS
12	18.0NS	14.0NS	14.0NS
13	22.0NS	18.0NS	18.0NS
14	22.0NS	20.0NS	20.0NS
15	14.0NS	14.0NS	14.0NS
16	20.0NS	22.0NS	26.0NS
17	24.0NS	20.0NS	20.0NS
18	24.0NS	22.0NS	20.0NS
19	20.0NS	20.0NS	26.0NS
20	18.0NS	16.0NS	18.0NS
21	24.0NS	24.0NS	24.0NS
22	16.0NS	16.0NS	18.0NS
23	16.0NS	16.0NS	20.0NS
25	32.0NS	28.0NS	28.0NS
26	18.0NS	16.0NS	18.0NS
27	20.0NS	18.0NS	18.0NS
28	20.0NS	20.0NS	22.0NS
30	20.0NS	18.0NS	20.0NS
31	16.0NS	16.0NS	18.0NS
33	24.0NS	22.0NS	20.0NS
34	20.0NS	18.0NS	20.0NS
35	18.0NS	14.0NS	16.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	19.6NS	18.2NS	19.6NS
STD DEV	3.96NS	3.46NS	3.22NS
MEDIAN	20.0NS	18.0NS	20.0NS
MIN VALLE	14.0NS	14.0NS	14.0NS
MAX VALLE	32.0NS	28.0NS	28.0NS
NUMBER	27	27	27

POST 2000HR DATA

DATA HOLD TIME (TDH) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	8.00NS	12.0NS	14.0NS
5	12.0NS	14.0NS	18.0NS
6	16.0NS	18.0NS	24.0NS
7	14.0NS	18.0NS	22.0NS
8	14.0NS	16.0NS	20.0NS
9	14.0NS	16.0NS	20.0NS
10	10.0NS	12.0NS	16.0NS
11	12.0NS	14.0NS	18.0NS
12	10.0NS	12.0NS	14.0NS
13	12.0NS	14.0NS	18.0NS
14	12.0NS	14.0NS	18.0NS
15	12.0NS	14.0NS	18.0NS
16	14.0NS	18.0NS	24.0NS
17	12.0NS	14.0NS	18.0NS
18	12.0NS	14.0NS	18.0NS
19	16.0NS	18.0NS	24.0NS
20	12.0NS	14.0NS	18.0NS
21	14.0NS	18.0NS	22.0NS
22	14.0NS	16.0NS	20.0NS
23	14.0NS	16.0NS	20.0NS
25	12.0NS	14.0NS	18.0NS
26	12.0NS	14.0NS	18.0NS
27	14.0NS	16.0NS	20.0NS
28	12.0NS	16.0NS	20.0NS
30	10.0NS	14.0NS	16.0NS
31	14.0NS	16.0NS	20.0NS
33	10.0NS	14.0NS	18.0NS
34	10.0NS	14.0NS	16.0NS
35	10.0NS	12.0NS	16.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	12.5NS	15.0NS	19.0NS
STD DEV	1.77NS	1.84NS	2.52NS
MEDIAN	12.0NS	14.0NS	18.0NS
MIN VALLE	10.0NS	12.0NS	14.0NS
MAX VALLE	16.0NS	18.0NS	24.0NS
NUMBER	27	27	27

POST 2000HR DATA

WRITE PULSE WIDTH (TWP) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	60.0NS	52.0NS	48.0NS
5	60.0NS	54.0NS	50.0NS
6	52.0NS	44.0NS	42.0NS
7	50.0NS	44.0NS	42.0NS
8	44.0NS	40.0NS	36.0NS
9	44.0NS	42.0NS	36.0NS
10	58.0NS	52.0NS	48.0NS
11	44.0NS	40.0NS	36.0NS
12	52.0NS	50.0NS	44.0NS
13	48.0NS	42.0NS	38.0NS
14	56.0NS	48.0NS	42.0NS
15	44.0NS	40.0NS	38.0NS
16	52.0NS	48.0NS	44.0NS
17	58.0NS	50.0NS	44.0NS
18	60.0NS	56.0NS	50.0NS
19	56.0NS	50.0NS	46.0NS
20	48.0NS	42.0NS	38.0NS
21	66.0NS	58.0NS	52.0NS
22	50.0NS	44.0NS	40.0NS
23	48.0NS	44.0NS	40.0NS
25	68.0NS	60.0NS	56.0NS
26	46.0NS	42.0NS	38.0NS
27	48.0NS	42.0NS	38.0NS
28	50.0NS	44.0NS	42.0NS
30	56.0NS	50.0NS	44.0NS
31	46.0NS	42.0NS	38.0NS
33	60.0NS	54.0NS	50.0NS
34	58.0NS	52.0NS	48.0NS
35	50.0NS	46.0NS	42.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	52.3NS	46.9NS	42.7NS
STD DEV	6.50NS	5.61NS	5.19NS
MEDIAN	50.0NS	44.0NS	42.0NS
MIN VALUE	44.0NS	40.0NS	36.0NS
MAX VALUE	68.0NS	60.0NS	56.0NS
NUMBER	27	27	27

POST 2000HR DATA

ADDRESS SETUP TIME (TAS) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	16.0NS	16.0NS	16.0NS
5	20.0NS	20.0NS	20.0NS
6	26.0NS	22.0NS	22.0NS
7	20.0NS	18.0NS	22.0NS
8	22.0NS	18.0NS	18.0NS
9	18.0NS	18.0NS	20.0NS
10	18.0NS	18.0NS	18.0NS
11	20.0NS	18.0NS	18.0NS
12	12.0NS	14.0NS	14.0NS
13	18.0NS	18.0NS	18.0NS
14	20.0NS	20.0NS	20.0NS
15	14.0NS	14.0NS	16.0NS
16	34.0NS	26.0NS	24.0NS
17	20.0NS	18.0NS	20.0NS
18	20.0NS	18.0NS	20.0NS
19	30.0NS	24.0NS	22.0NS
20	18.0NS	18.0NS	20.0NS
21	24.0NS	24.0NS	26.0NS
22	24.0NS	20.0NS	22.0NS
23	20.0NS	18.0NS	20.0NS
25	22.0NS	22.0NS	22.0NS
26	18.0NS	16.0NS	18.0NS
27	18.0NS	18.0NS	20.0NS
28	20.0NS	18.0NS	18.0NS
30	18.0NS	18.0NS	18.0NS
31	18.0NS	18.0NS	20.0NS
33	20.0NS	18.0NS	20.0NS
34	66.0NS	60.0NS	58.0NS
35	16.0NS	16.0NS	16.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	22.0NS	20.3NS	21.1NS
STD DEV	9.68NS	8.25NS	7.65NS
MEDIAN	20.0NS	18.0NS	20.0NS
MIN VALUE	12.0NS	14.0NS	14.0NS
MAX VALUE	66.0NS	60.0NS	58.0NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 2000HR DATA

ADDRESS HOLD TIME (TAH) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	-6.00NS	-2.00NS	2.00NS
5	-6.00NS	-2.00NS	2.00NS
6	-4.00NS	2.00NS	6.00NS
7	-4.00NS	0.00 S	4.00NS
8	-4.00NS	0.00 S	6.00NS
9	-4.00NS	2.00NS	6.00NS
10	-6.00NS	-2.00NS	2.00NS
11	-4.00NS	0.00 S	4.00NS
12	-2.00NS	0.00 S	2.00NS
13	-4.00NS	0.00 S	4.00NS
14	-6.00NS	-2.00NS	2.00NS
15	-2.00NS	0.00 S	4.00NS
16	-4.00NS	0.00 S	6.00NS
17	-6.00NS	0.00 S	2.00NS
18	-6.00NS	-2.00NS	2.00NS
19	-4.00NS	0.00 S	4.00NS
20	-4.00NS	0.00 S	4.00NS
21	-8.00NS	-2.00NS	4.00NS
22	-4.00NS	0.00 S	6.00NS
23	-2.00NS	2.00NS	6.00NS
25	-8.00NS	-2.00NS	2.00NS
26	-4.00NS	0.00 S	4.00NS
27	-4.00NS	0.00 S	6.00NS
28	-4.00NS	0.00 S	4.00NS
30	-4.00NS	0.00 S	2.00NS
31	-2.00NS	2.00NS	6.00NS
33	-6.00NS	-2.00NS	2.00NS
34	-6.00NS	-2.00NS	2.00NS
35	-4.00NS	-2.00NS	2.00NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-4.44NS	-296.PS	3.85NS
STD DEV	1.57NS	1.30NS	1.63NS
MEDIAN	-4.00NS	0.00 S	4.00NS
MIN VALUE	-8.00NS	-2.00NS	2.00NS
MAX VALUE	-2.00NS	2.00NS	6.00NS
NUMBER	27	27	27

POST 2000HR DATA

CHIP ENABLE TO WRITE TIME (TWS) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	60.0NS	54.0NS	46.0NS
5	62.0NS	54.0NS	48.0NS
6	52.0NS	46.0NS	38.0NS
7	50.0NS	42.0NS	34.0NS
8	46.0NS	42.0NS	34.0NS
9	46.0NS	40.0NS	34.0NS
10	60.0NS	54.0NS	48.0NS
11	46.0NS	40.0NS	34.0NS
12	54.0NS	48.0NS	42.0NS
13	48.0NS	42.0NS	36.0NS
14	58.0NS	48.0NS	42.0NS
15	46.0NS	40.0NS	36.0NS
16	54.0NS	46.0NS	38.0NS
17	58.0NS	50.0NS	42.0NS
18	62.0NS	56.0NS	50.0NS
19	56.0NS	50.0NS	42.0NS
20	46.0NS	42.0NS	36.0NS
21	66.0NS	60.0NS	50.0NS
22	50.0NS	44.0NS	38.0NS
23	50.0NS	42.0NS	38.0NS
25	70.0NS	62.0NS	54.0NS
26	46.0NS	42.0NS	36.0NS
27	50.0NS	42.0NS	36.0NS
28	50.0NS	46.0NS	38.0NS
30	56.0NS	50.0NS	44.0NS
31	46.0NS	40.0NS	36.0NS
33	62.0NS	54.0NS	48.0NS
34	58.0NS	52.0NS	46.0NS
35	52.0NS	46.0NS	42.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	53.3NS	46.9NS	40.4NS
STD DEV	6.60NS	6.12NS	5.61NS
MEDIAN	52.0NS	46.0NS	38.0NS
MIN VALUE	46.0NS	40.0NS	34.0NS
MAX VALUE	70.0NS	62.0NS	54.0NS
NUMBER	27	27	27

POST 2000HR DATA

READ CYCLE TIME (TRC) AT 85 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	150.NS	130.NS	125.NS
5	160.NS	140.NS	125.NS
6	180.NS	155.NS	135.NS
7	160.NS	135.NS	125.NS
8	165.NS	135.NS	120.NS
9	150.NS	130.NS	120.NS
10	165.NS	140.NS	125.NS
11	150.NS	125.NS	115.NS
12	120.NS	110.NS	105.NS
13	160.NS	135.NS	125.NS
14	170.NS	145.NS	130.NS
15	115.NS	110.NS	105.NS
16	200.NS	160.NS	140.NS
17	165.NS	145.NS	130.NS
18	160.NS	140.NS	125.NS
19	190.NS	150.NS	135.NS
20	150.NS	125.NS	115.NS
21	205.NS	180.NS	160.NS
22	180.NS	150.NS	135.NS
23	155.NS	135.NS	120.NS
25	185.NS	160.NS	150.NS
26	150.NS	125.NS	115.NS
27	165.NS	135.NS	125.NS
28	170.NS	145.NS	130.NS
30	155.NS	135.NS	125.NS
31	150.NS	130.NS	120.NS
33	175.NS	145.NS	130.NS
34	160.NS	140.NS	130.NS
35	130.NS	120.NS	115.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	162.NS	139.NS	126.NS
STD DEV	20.6NS	15.0NS	11.8NS
MEDIAN	160.NS	135.NS	125.NS
MIN VALUE	115.NS	110.NS	105.NS
MAX VALUE	205.NS	180.NS	160.NS
NUMBER	27	27	27

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POST 2000HR DATA

WRITE CYCLE TIME (TWC) AT 85 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	86.0NS	80.0NS	80.0NS
5	90.0NS	84.0NS	80.0NS
6	88.0NS	80.0NS	80.0NS
7	80.0NS	80.0NS	80.0NS
8	80.0NS	80.0NS	80.0NS
9	80.0NS	80.0NS	80.0NS
10	86.0NS	80.0NS	80.0NS
11	80.0NS	80.0NS	80.0NS
12	80.0NS	80.0NS	80.0NS
13	80.0NS	80.0NS	80.0NS
14	86.0NS	80.0NS	80.0NS
15	80.0NS	80.0NS	80.0NS
16	96.0NS	84.0NS	80.0NS
17	88.0NS	80.0NS	80.0NS
18	90.0NS	84.0NS	80.0NS
19	96.0NS	84.0NS	80.0NS
20	80.0NS	80.0NS	80.0NS
21	100.NS	92.0NS	88.0NS
22	84.0NS	80.0NS	80.0NS
23	80.0NS	80.0NS	80.0NS
25	100.NS	92.0NS	88.0NS
26	80.0NS	80.0NS	80.0NS
27	80.0NS	80.0NS	80.0NS
28	80.0NS	80.0NS	80.0NS
30	84.0NS	80.0NS	80.0NS
31	80.0NS	80.0NS	80.0NS
33	90.0NS	82.0NS	80.0NS
34	133.NS	121.NS	116.NS
35	80.0NS	80.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	86.7NS	82.9NS	81.9NS
STD DEV	11.1NS	8.14NS	7.00NS
MEDIAN	80.0NS	80.0NS	80.0NS
MIN VALUE	80.0NS	80.0NS	80.0NS
MAX VALUE	133.NS	121.NS	116.NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 2000HR DATA

CHIP ENABLE TIME (TEN) AT 85 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	30.0NS	26.0NS	24.0NS
5	32.0NS	28.0NS	24.0NS
6	34.0NS	30.0NS	26.0NS
7	30.0NS	26.0NS	24.0NS
8	30.0NS	26.0NS	24.0NS
9	28.0NS	24.0NS	22.0NS
10	32.0NS	28.0NS	26.0NS
11	26.0NS	24.0NS	22.0NS
12	28.0NS	24.0NS	22.0NS
13	32.0NS	28.0NS	24.0NS
14	36.0NS	30.0NS	28.0NS
15	28.0NS	24.0NS	22.0NS
16	32.0NS	28.0NS	26.0NS
17	34.0NS	30.0NS	28.0NS
18	32.0NS	28.0NS	26.0NS
19	32.0NS	26.0NS	24.0NS
20	30.0NS	26.0NS	24.0NS
21	44.0NS	38.0NS	34.0NS
22	34.0NS	30.0NS	26.0NS
23	30.0NS	26.0NS	24.0NS
25	36.0NS	32.0NS	28.0NS
26	28.0NS	24.0NS	22.0NS
27	32.0NS	28.0NS	26.0NS
28	32.0NS	26.0NS	26.0NS
30	30.0NS	26.0NS	24.0NS
31	30.0NS	26.0NS	24.0NS
33	34.0NS	30.0NS	26.0NS
34	32.0NS	28.0NS	26.0NS
35	28.0NS	26.0NS	24.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	31.6NS	27.6NS	25.1NS
STD DEV	3.49NS	3.00NS	2.51NS
MEDIAN	32.0NS	28.0NS	24.0NS
MIN VALUE	26.0NS	24.0NS	22.0NS
MAX VALUE	44.0NS	38.0NS	34.0NS
NUMBER	27	27	27

POST 2000HR DATA

OUTPUT VOLTAGE LOW (VCL) AT 85 C

SERIAL NO.	
4	125.MV
5	145.MV
6	165.MV
7	150.MV
8	150.MV
9	125.MV
10	140.MV
11	135.MV
12	120.MV
13	150.MV
14	165.MV
15	135.MV
16	150.MV
17	155.MV
18	140.MV
19	145.MV
20	135.MV
21	205.MV
22	145.MV
23	135.MV
25	160.MV
26	130.MV
27	155.MV
28	155.MV
30	135.MV
31	125.MV
33	150.MV
34	145.MV
35	125.MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	145.MV
STD DEV	16.8MV
MEDIAN	145.MV
MIN VALUE	120.MV
MAX VALUE	205.MV
NUMBER	27

POST 2000HR DATA

OUTPUT VOLTAGE HIGH (VCH1) AT 85 C

SERIAL NO.	
4	4.35 V
5	4.34 V
6	4.34 V
7	4.35 V
8	4.35 V
9	4.36 V
10	4.34 V
11	4.36 V
12	4.36 V
13	4.34 V
14	4.32 V
15	4.35 V
16	4.35 V
17	4.33 V
18	4.34 V
19	4.35 V
20	4.36 V
21	4.30 V
22	4.34 V
23	4.36 V
25	4.32 V
26	4.36 V
27	4.34 V
28	4.34 V
30	4.35 V
31	4.36 V
33	4.34 V
34	4.34 V
35	4.35 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.60 V
MEAN	4.35 V
STD DEV	13.8MV
MEDIAN	4.35 V
MIN VALUE	4.30 V
MAX VALUE	4.36 V
NUMBER	27

POST 2000HR DATA

OUTPUT VOLTAGE HIGH (VOH2) AT 85 C

SERIAL NO.	
4	4.86 V
5	4.85 V
6	4.84 V
7	4.84 V
8	4.85 V
9	4.86 V
10	4.85 V
11	4.86 V
12	4.86 V
13	4.85 V
14	4.83 V
15	4.85 V
16	4.85 V
17	4.84 V
18	4.85 V
19	4.84 V
20	4.86 V
21	4.82 V
22	4.84 V
23	4.86 V
25	4.82 V
26	4.86 V
27	4.85 V
28	4.84 V
30	4.86 V
31	4.86 V
33	4.85 V
34	4.84 V
35	4.85 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.85 V
STD DEV	10.7MV
MEDIAN	4.85 V
MIN VALUE	4.82 V
MAX VALUE	4.86 V
NUMBER	27

POST 2000HR DATA

AVERAGE INPUT LOW CURRENT (IIL) AT 85 C

SERIAL NO.	
4	-42.1NA
5	-60.7NA
6	-24.5NA
7	-45.5NA
8	-11.1NA
9	-72.9NA
10	-38.5NA
11	-23.1NA
12	-31.3NA
13	-28.6NA
14	-33.1NA
15	-37.1NA
16	-17.4NA
17	-22.6NA
18	-30.2NA
19	-29.9NA
20	-19.5NA
21	-22.7NA
22	-69.6NA
23	-46.7NA
25	-25.9NA
26	-20.2NA
27	-19.0NA
28	-19.0NA
30	-38.4NA
31	-65.2NA
33	-33.6NA
34	-37.2NA
35	-33.5NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-33.2NA
STD DEV	15.3NA
MEDIAN	-30.2NA
MIN VALLE	-72.9NA
MAX VALLE	-11.1NA
NUMBER	27

POST 2000HR DATA

WORST CASE INPUT LOW CURRENT (IIL) AT 85 C

SERIAL NO.	
4	-47.6NA
5	-74.9NA
6	-33.4NA
7	-54.6NA
8	-35.0NA
9	-79.3NA
10	-45.5NA
11	-37.1NA
12	-40.0NA
13	-45.6NA
14	-109.NA
15	-48.7NA
16	-63.6NA
17	-34.9NA
18	-44.1NA
19	-114.NA
20	-57.5NA
21	-45.3NA
22	-92.5NA
23	-65.2NA
25	-50.3NA
26	-53.2NA
27	-44.7NA
28	-37.0NA
30	-59.3NA
31	-95.9NA
33	-62.1NA
34	-68.9NA
35	-53.0NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-58.1NA
STD DEV	22.0NA
MEDIAN	-53.0NA
MIN VALUE	-114.NA
MAX VALUE	-33.4NA
NUMBER	27

POST 2000HR DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT 85 C

SERIAL NO.	
4	94.8NA
5	121.NA
6	49.3NA
7	79.5NA
8	66.5NA
9	102.NA
10	51.9NA
11	51.9NA
12	95.4NA
13	35.6NA
14	46.7NA
15	61.5NA
16	39.4NA
17	36.6NA
18	71.5NA
19	57.8NA
20	32.4NA
21	28.0NA
22	152.NA
23	145.NA
25	113.NA
26	57.3NA
27	65.7NA
28	63.0NA
30	67.3NA
31	120.NA
33	112.NA
34	140.NA
35	80.9NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	74.9NA
STD DEV	35.0NA
MEDIAN	65.7NA
MIN VALUE	28.0NA
MAX VALUE	152.NA
NUMBER	27

POST 2000HR DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT 85 C

SERIAL NO.	
4	480.NA
5	429.NA
6	275.NA
7	219.NA
8	298.NA
9	313.NA
10	128.NA
11	235.NA
12	438.NA
13	124.NA
14	238.NA
15	145.NA
16	142.NA
17	93.3NA
18	345.NA
19	318.NA
20	187.NA
21	94.7NA
22	421.NA
23	450.NA
25	464.NA
26	259.NA
27	200.NA
28	206.NA
30	167.NA
31	361.NA
33	332.NA
34	420.NA
35	216.NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	262.NA
STD DEV	111.NA
MEDIAN	238.NA
MIN VALUE	93.3NA
MAX VALUE	464.NA
NUMBER	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 2000HR DATA

SUPPLY CURRENT (ICC180) AT 85 C

SERIAL NO.	
4	228.UA
5	51.7UA
6	51.3UA
7	62.6UA
8	42.0UA
9	83.7UA
10	30.6UA
11	27.5UA
12	39.8UA
13	26.7UA
14	23.5UA
15	67.3UA
16	18.3UA
17	16.7UA
18	23.8UA
19	20.0UA
20	16.1UA
21	14.3UA
22	53.4UA
23	46.5UA
25	49.8UA
26	28.8UA
27	36.1UA
28	26.3UA
30	87.4UA
31	55.8UA
33	39.9UA
34	280.UA
35	46.0UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	48.7UA
STD DEV	49.3UA
MEDIAN	39.8UA
MIN VALUE	14.3UA
MAX VALUE	280.UA
NUMBER	27

POST 2000HR DATA

SUPPLY CURRENT (ICC1B1) AT 85 C

SERIAL NO.	
4	415.UA
5	62.5UA
6	58.9UA
7	75.4UA
8	42.2UA
9	84.0UA
10	32.8UA
11	30.4UA
12	67.1UA
13	33.1UA
14	21.6UA
15	64.1UA
16	18.2UA
17	18.3UA
18	28.0UA
19	18.9UA
20	19.3UA
21	16.0UA
22	46.5UA
23	53.4UA
25	96.9UA
26	31.5UA
27	36.1UA
28	26.3UA
30	136.UA
31	76.9UA
33	1.36MA *
34	371.UA
35	48.4UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	108.UA
STD DEV	256.UA
MEDIAN	42.2UA
MIN VALUE	16.0UA
MAX VALUE	1.36MA
NUMBER	27

POST 2000HR DATA

SUPPLY CURRENT (ICC280) AT 85 C

SERIAL NO.	
4	226.UA
5	213.UA
6	54.2UA
7	71.6UA
8	44.1UA
9	94.9UA
10	32.3UA
11	29.5UA
12	52.0UA
13	33.5UA
14	25.3UA
15	79.3UA
16	20.5UA
17	25.4UA
18	24.5UA
19	22.4UA
20	17.9UA
21	15.1UA
22	568.UA
23	51.0UA
25	55.3UA
26	34.1UA
27	23.6UA
28	30.0UA
30	82.8UA
31	64.1UA
33	79.0UA
34	319.UA
35	54.8UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	74.2UA
STD DEV	112.UA
MEDIAN	44.1UA
MIN VALUE	15.1UA
MAX VALUE	568.UA
NUMBER	27

POST 2000HR DATA

SUPPLY CURRENT (ICC281) AT 85 C

SERIAL NO.	
4	322.UA
5	202.UA
6	51.9UA
7	67.3UA
8	38.4UA
9	71.6UA
10	25.7UA
11	21.0UA
12	35.7UA
13	27.8UA
14	16.7UA
15	46.8UA
16	13.4UA
17	20.8UA
18	20.0UA
19	14.3UA
20	13.2UA
21	11.0UA
22	544.UA
23	43.0UA
25	69.7UA
26	22.7UA
27	17.1UA
28	19.4UA
30	91.9UA
31	67.0UA
33	1.44MA *
34	326.UA
35	34.2UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	117.UA
STD DEV	282.UA
MEDIAN	34.2UA
MIN VALUE	11.0UA
MAX VALUE	1.44MA
NUMBER	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 2000HR DATA

OUTPUT LEAKAGE CURRENT (IOL) AT 85 C

SERIAL NO.	
4	7.07UA *
5	1.14UA *
6	215.NA
7	301.NA
8	196.NA
9	304.NA
10	484.NA
11	392.NA
12	604.NA
13	1.63UA *
14	1.04UA *
15	304.NA
16	441.NA
17	404.NA
18	488.NA
19	519.NA
20	458.NA
21	636.NA
22	493.NA
23	201.NA
25	1.22UA *
26	716.NA
27	165.NA
28	363.NA
30	3.83UA *
31	240.NA
33	390.NA
34	3.29UA *
35	690.NA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	741.NA
STD DEV	862.NA
MEDIAN	458.NA
MIN VALUE	165.NA
MAX VALUE	3.83UA
NUMBER	27

POST 2000HR DATA

ADDRESS ACCESS TIME (TAA) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	175.NS	145.NS	135.NS
5	180.NS	155.NS	140.NS
6	190.NS	160.NS	140.NS
7	185.NS	160.NS	150.NS
8	170.NS	145.NS	130.NS
9	180.NS	150.NS	135.NS
10	180.NS	150.NS	135.NS
11	160.NS	135.NS	125.NS
12	115.NS	105.NS	100.NS
13	170.NS	140.NS	130.NS
14	190.NS	155.NS	140.NS
15	120.NS	105.NS	100.NS
16	235.NS	185.NS	165.NS
17	170.NS	150.NS	135.NS
18	170.NS	145.NS	135.NS
19	210.NS	170.NS	155.NS
20	155.NS	130.NS	125.NS
21	240.NS	200.NS	185.NS
22	190.NS	160.NS	145.NS
23	170.NS	145.NS	135.NS
25	205.NS	175.NS	160.NS
26	155.NS	135.NS	120.NS
27	170.NS	150.NS	135.NS
28	185.NS	155.NS	140.NS
30	175.NS	150.NS	135.NS
31	160.NS	140.NS	130.NS
33	280.NS *	240.NS	220.NS
34	255.NS *	215.NS	200.NS
35	125.NS	115.NS	105.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	182.NS	154.NS	141.NS
STD DEV	37.3NS	29.4NS	26.6NS
MEDIAN	175.NS	150.NS	135.NS
MIN VALLE	115.NS	105.NS	100.NS
MAX VALLE	280.NS	240.NS	220.NS
NUMBER	27	27	27

POST 2000HR DATA

DATA SETUP TIME (TDS) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	24.0NS	22.0NS	22.0NS
5	22.0NS	20.0NS	20.0NS
6	16.0NS	16.0NS	18.0NS
7	14.0NS	14.0NS	20.0NS
8	16.0NS	16.0NS	18.0NS
9	14.0NS	16.0NS	20.0NS
10	22.0NS	20.0NS	22.0NS
11	16.0NS	16.0NS	18.0NS
12	16.0NS	16.0NS	16.0NS
13	18.0NS	18.0NS	20.0NS
14	22.0NS	18.0NS	20.0NS
15	14.0NS	14.0NS	16.0NS
16	20.0NS	22.0NS	28.0NS
17	22.0NS	20.0NS	18.0NS
18	22.0NS	22.0NS	22.0NS
19	20.0NS	22.0NS	26.0NS
20	18.0NS	18.0NS	18.0NS
21	26.0NS	22.0NS	24.0NS
22	16.0NS	16.0NS	18.0NS
23	16.0NS	16.0NS	20.0NS
25	30.0NS	28.0NS	26.0NS
26	16.0NS	18.0NS	20.0NS
27	18.0NS	18.0NS	20.0NS
28	20.0NS	18.0NS	20.0NS
30	22.0NS	20.0NS	22.0NS
31	16.0NS	16.0NS	20.0NS
33	22.0NS	20.0NS	22.0NS
34	22.0NS	20.0NS	22.0NS
35	16.0NS	16.0NS	16.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	18.9NS	18.4NS	20.4NS
STD DEV	3.82NS	3.03NS	2.98NS
MEDIAN	18.0NS	18.0NS	20.0NS
MIN VALUE	14.0NS	14.0NS	16.0NS
MAX VALUE	30.0NS	28.0NS	28.0NS
NUMBER	27	27	27

POST 2000HR DATA

DATA HOLD TIME (TDH) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	10.0NS	12.0NS	16.0NS
5	12.0NS	14.0NS	18.0NS
6	16.0NS	20.0NS	24.0NS
7	16.0NS	18.0NS	24.0NS
8	14.0NS	18.0NS	22.0NS
9	14.0NS	18.0NS	22.0NS
10	12.0NS	14.0NS	18.0NS
11	12.0NS	16.0NS	20.0NS
12	10.0NS	12.0NS	14.0NS
13	12.0NS	14.0NS	18.0NS
14	12.0NS	14.0NS	18.0NS
15	12.0NS	14.0NS	18.0NS
16	16.0NS	20.0NS	26.0NS
17	12.0NS	14.0NS	18.0NS
18	12.0NS	14.0NS	18.0NS
19	16.0NS	20.0NS	26.0NS
20	14.0NS	16.0NS	20.0NS
21	14.0NS	20.0NS	24.0NS
22	14.0NS	18.0NS	22.0NS
23	14.0NS	18.0NS	22.0NS
25	12.0NS	16.0NS	20.0NS
26	12.0NS	16.0NS	18.0NS
27	14.0NS	18.0NS	22.0NS
28	14.0NS	18.0NS	22.0NS
30	12.0NS	14.0NS	18.0NS
31	14.0NS	18.0NS	22.0NS
33	12.0NS	14.0NS	18.0NS
34	12.0NS	14.0NS	18.0NS
35	12.0NS	14.0NS	16.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	50.0NS	50.0NS	50.0NS
MEAN	13.2NS	16.3NS	20.3NS
STD DEV	1.56NS	2.35NS	2.97NS
MEDIAN	12.0NS	16.0NS	20.0NS
MIN VALUE	10.0NS	12.0NS	14.0NS
MAX VALUE	16.0NS	20.0NS	26.0NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 2000HR DATA

WRITE PULSE WIDTH (TWP) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	66.0NS	60.0NS	54.0NS
5	66.0NS	60.0NS	54.0NS
6	58.0NS	52.0NS	48.0NS
7	54.0NS	50.0NS	46.0NS
8	52.0NS	46.0NS	42.0NS
9	50.0NS	44.0NS	42.0NS
10	64.0NS	58.0NS	52.0NS
11	52.0NS	48.0NS	44.0NS
12	58.0NS	54.0NS	50.0NS
13	56.0NS	50.0NS	46.0NS
14	60.0NS	54.0NS	50.0NS
15	48.0NS	44.0NS	42.0NS
16	60.0NS	54.0NS	52.0NS
17	62.0NS	56.0NS	50.0NS
18	68.0NS	60.0NS	56.0NS
19	62.0NS	56.0NS	52.0NS
20	54.0NS	50.0NS	44.0NS
21	76.0NS	68.0NS	64.0NS
22	54.0NS	50.0NS	44.0NS
23	52.0NS	48.0NS	44.0NS
25	80.0NS	72.0NS	66.0NS
26	52.0NS	48.0NS	44.0NS
27	56.0NS	50.0NS	46.0NS
28	58.0NS	52.0NS	50.0NS
30	64.0NS	58.0NS	52.0NS
31	50.0NS	46.0NS	44.0NS
33	66.0NS	60.0NS	54.0NS
34	68.0NS	60.0NS	56.0NS
35	56.0NS	52.0NS	50.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	90.0NS	90.0NS	90.0NS
MEAN	58.9NS	53.3NS	49.3NS
STD DEV	7.69NS	6.62NS	6.09NS
MEDIAN	58.0NS	52.0NS	50.0NS
MIN VALUE	48.0NS	44.0NS	42.0NS
MAX VALUE	80.0NS	72.0NS	66.0NS
NUMBER	27	27	27

POST 2000HR DATA

ADDRESS SETUP TIME (TAS) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	18.0NS	18.0NS	18.0NS
5	26.0NS	24.0NS	26.0NS
6	26.0NS	24.0NS	24.0NS
7	24.0NS	24.0NS	26.0NS
8	24.0NS	20.0NS	22.0NS
9	22.0NS	22.0NS	24.0NS
10	22.0NS	22.0NS	24.0NS
11	22.0NS	20.0NS	22.0NS
12	14.0NS	16.0NS	16.0NS
13	22.0NS	20.0NS	22.0NS
14	24.0NS	24.0NS	24.0NS
15	16.0NS	16.0NS	18.0NS
16	40.0NS	30.0NS	28.0NS
17	22.0NS	22.0NS	24.0NS
18	24.0NS	22.0NS	24.0NS
19	34.0NS	26.0NS	28.0NS
20	22.0NS	22.0NS	24.0NS
21	28.0NS	28.0NS	30.0NS
22	26.0NS	24.0NS	26.0NS
23	22.0NS	22.0NS	24.0NS
25	24.0NS	24.0NS	26.0NS
26	20.0NS	18.0NS	20.0NS
27	22.0NS	22.0NS	24.0NS
28	22.0NS	22.0NS	24.0NS
30	20.0NS	20.0NS	22.0NS
31	20.0NS	22.0NS	24.0NS
33	24.0NS	24.0NS	24.0NS
34	70.0NS	66.0NS	64.0NS
35	18.0NS	18.0NS	18.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	25.0NS	23.7NS	25.0NS
STD DEV	10.1NS	8.86NS	8.21NS
MEDIAN	22.0NS	22.0NS	24.0NS
MIN VALLE	14.0NS	16.0NS	16.0NS
MAX VALLE	70.0NS	66.0NS	64.0NS
NUMBER	27	27	27

POST 2000HR DATA

ADDRESS HOLD TIME (TAH) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	-8.00NS	-4.00NS	0.00 S
5	-8.00NS	-4.00NS	2.00NS
6	-4.00NS	0.00 S	6.00NS
7	-4.00NS	0.00 S	6.00NS
8	-4.00NS	0.00 S	6.00NS
9	-4.00NS	0.00 S	6.00NS
10	-8.00NS	-4.00NS	2.00NS
11	-4.00NS	0.00 S	4.00NS
12	-4.00NS	-2.00NS	2.00NS
13	-6.00NS	-2.00NS	2.00NS
14	-6.00NS	-2.00NS	2.00NS
15	-2.00NS	0.00 S	2.00NS
16	-6.00NS	0.00 S	6.00NS
17	-6.00NS	-2.00NS	2.00NS
18	-6.00NS	-2.00NS	2.00NS
19	-4.00NS	0.00 S	6.00NS
20	-4.00NS	0.00 S	4.00NS
21	-8.00NS	-2.00NS	4.00NS
22	-6.00NS	0.00 S	4.00NS
23	-4.00NS	0.00 S	6.00NS
25	-8.00NS	-4.00NS	2.00NS
26	-4.00NS	0.00 S	4.00NS
27	-4.00NS	0.00 S	6.00NS
28	-6.00NS	0.00 S	4.00NS
30	-6.00NS	-2.00NS	2.00NS
31	-4.00NS	2.00NS	6.00NS
33	-8.00NS	-4.00NS	2.00NS
34	-8.00NS	-4.00NS	2.00NS
35	-6.00NS	-2.00NS	0.00 S

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	-5.33NS	-1.11NS	3.70NS
STD DEV	1.63NS	1.57NS	1.86NS
MEDIAN	-6.00NS	0.00 S	4.00NS
MIN VALUE	-8.00NS	-4.00NS	0.00 S
MAX VALUE	-2.00NS	2.00NS	6.00NS
NUMBER	27	27	27

POST 2000HR DATA

CHIP ENABLE TO WRITE TIME (TWS) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	66.0NS	58.0NS	52.0NS
5	68.0NS	58.0NS	52.0NS
6	58.0NS	50.0NS	42.0NS
7	54.0NS	48.0NS	36.0NS
8	52.0NS	46.0NS	40.0NS
9	50.0NS	42.0NS	36.0NS
10	66.0NS	58.0NS	50.0NS
11	52.0NS	46.0NS	40.0NS
12	58.0NS	54.0NS	50.0NS
13	56.0NS	50.0NS	42.0NS
14	62.0NS	54.0NS	48.0NS
15	50.0NS	44.0NS	42.0NS
16	60.0NS	54.0NS	42.0NS
17	62.0NS	56.0NS	48.0NS
18	68.0NS	62.0NS	54.0NS
19	62.0NS	54.0NS	44.0NS
20	54.0NS	48.0NS	42.0NS
21	78.0NS *	68.0NS	58.0NS
22	54.0NS	48.0NS	42.0NS
23	52.0NS	46.0NS	40.0NS
25	82.0NS *	72.0NS *	64.0NS
26	52.0NS	46.0NS	40.0NS
27	56.0NS	50.0NS	42.0NS
28	58.0NS	52.0NS	46.0NS
30	64.0NS	58.0NS	50.0NS
31	50.0NS	46.0NS	40.0NS
33	66.0NS	58.0NS	52.0NS
34	68.0NS	60.0NS	54.0NS
35	56.0NS	50.0NS	46.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	70.0NS	70.0NS	70.0NS
MEAN	59.3NS	52.6NS	45.6NS
STD DEV	8.04NS	7.09NS	6.61NS
MEDIAN	58.0NS	50.0NS	42.0NS
MIN VALUE	50.0NS	42.0NS	36.0NS
MAX VALUE	82.0NS	72.0NS	64.0NS
NUMBER	27	27	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 2000HR DATA

READ CYCLE TIME (TRC) AT 125 C

SERIAL NO.	VCC 4.5V	VCC 5.0V	VCC 5.5V
4	180.NS	155.NS	145.NS
5	175.NS	155.NS	145.NS
6	190.NS	160.NS	145.NS
7	180.NS	155.NS	140.NS
8	175.NS	145.NS	130.NS
9	165.NS	140.NS	130.NS
10	180.NS	155.NS	145.NS
11	160.NS	135.NS	125.NS
12	135.NS	125.NS	115.NS
13	175.NS	155.NS	140.NS
14	180.NS	160.NS	145.NS
15	130.NS	120.NS	115.NS
16	220.NS	180.NS	155.NS
17	175.NS	155.NS	145.NS
18	175.NS	155.NS	145.NS
19	210.NS	170.NS	150.NS
20	160.NS	140.NS	130.NS
21	230.NS	200.NS	185.NS
22	190.NS	160.NS	145.NS
23	170.NS	145.NS	135.NS
25	210.NS	185.NS	170.NS
26	160.NS	140.NS	125.NS
27	170.NS	155.NS	140.NS
28	185.NS	160.NS	145.NS
30	175.NS	155.NS	145.NS
31	160.NS	140.NS	130.NS
33	190.NS	160.NS	150.NS
34	190.NS	165.NS	150.NS
35	145.NS	135.NS	125.NS

STATISTICAL ANALYSIS

SPEC LIMIT	250.NS	250.NS	250.NS
MEAN	177.NS	154.NS	141.NS
STD DEV	22.8NS	17.2NS	14.9NS
MEDIAN	175.NS	155.NS	145.NS
MIN VALUE	130.NS	120.NS	115.NS
MAX VALUE	230.NS	200.NS	185.NS
NUMBER	27	27	27

POST 2000HR DATA

WRITE CYCLE TIME (TWC) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	94.0NS	88.0NS	82.0NS
5	102.NS	94.0NS	90.0NS
6	94.0NS	86.0NS	82.0NS
7	88.0NS	84.0NS	82.0NS
8	86.0NS	80.0NS	80.0NS
9	82.0NS	80.0NS	80.0NS
10	96.0NS	90.0NS	86.0NS
11	84.0NS	80.0NS	80.0NS
12	82.0NS	80.0NS	80.0NS
13	88.0NS	80.0NS	80.0NS
14	94.0NS	88.0NS	84.0NS
15	80.0NS	80.0NS	80.0NS
16	110.NS	94.0NS	90.0NS
17	94.0NS	88.0NS	84.0NS
18	102.NS	92.0NS	90.0NS
19	106.NS	92.0NS	90.0NS
20	86.0NS	82.0NS	80.0NS
21	114.NS	106.NS	104.NS
22	90.0NS	84.0NS	80.0NS
23	84.0NS	80.0NS	80.0NS
25	114.NS	106.NS	102.NS
26	82.0NS	80.0NS	80.0NS
27	88.0NS	82.0NS	80.0NS
28	90.0NS	84.0NS	84.0NS
30	94.0NS	88.0NS	84.0NS
31	80.0NS	80.0NS	80.0NS
33	100.NS	94.0NS	88.0NS
34	148.NS	136.NS	129.NS
35	84.0NS	80.0NS	80.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	220.NS	220.NS	220.NS
MEAN	94.1NS	88.0NS	85.9NS
STD DEV	14.4NS	11.9NS	10.5NS
MEDIAN	90.0NS	84.0NS	82.0NS
MIN VALUE	80.0NS	80.0NS	80.0NS
MAX VALUE	148.NS	136.NS	129.NS
NUMBER	27	27	27

POST 2000HR DATA

CHIP ENABLE TIME (TEN) AT 125 C

SERIAL NO.	VCC 4.5V	5.0V	5.5V
4	34.0NS	30.0NS	26.0NS
5	34.0NS	30.0NS	28.0NS
6	36.0NS	32.0NS	28.0NS
7	32.0NS	30.0NS	26.0NS
8	32.0NS	28.0NS	26.0NS
9	30.0NS	26.0NS	24.0NS
10	34.0NS	30.0NS	28.0NS
11	30.0NS	26.0NS	24.0NS
12	30.0NS	26.0NS	24.0NS
13	34.0NS	30.0NS	28.0NS
14	38.0NS	32.0NS	30.0NS
15	28.0NS	26.0NS	24.0NS
16	34.0NS	30.0NS	28.0NS
17	36.0NS	32.0NS	30.0NS
18	34.0NS	30.0NS	28.0NS
19	34.0NS	30.0NS	28.0NS
20	32.0NS	28.0NS	24.0NS
21	48.0NS	42.0NS	38.0NS
22	34.0NS	30.0NS	28.0NS
23	32.0NS	28.0NS	26.0NS
25	40.0NS	34.0NS	32.0NS
26	30.0NS	26.0NS	24.0NS
27	34.0NS	30.0NS	26.0NS
28	34.0NS	32.0NS	28.0NS
30	34.0NS	30.0NS	26.0NS
31	30.0NS	26.0NS	24.0NS
33	36.0NS	32.0NS	30.0NS
34	36.0NS	32.0NS	28.0NS
35	30.0NS	26.0NS	24.0NS

STATISTICAL ANALYSIS

SPEC LIMIT	60.0NS	60.0NS	60.0NS
MEAN	33.8NS	29.8NS	27.2NS
STD DEV	3.90NS	3.37NS	3.09NS
MEDIAN	34.0NS	30.0NS	28.0NS
MIN VALUE	28.0NS	26.0NS	24.0NS
MAX VALUE	48.0NS	42.0NS	38.0NS
NUMBER	27	27	27

POST 2000HR DATA

OUTPUT VOLTAGE LOW (VOL) AT 125 C

SERIAL NO.	
4	145.MV
5	165.MV
6	185.MV
7	175.MV
8	170.MV
9	145.MV
10	160.MV
11	150.MV
12	135.MV
13	170.MV
14	190.MV
15	150.MV
16	175.MV
17	175.MV
18	160.MV
19	165.MV
20	155.MV
21	230.MV
22	165.MV
23	150.MV
25	185.MV
26	150.MV
27	175.MV
28	180.MV
30	155.MV
31	145.MV
33	170.MV
34	170.MV
35	145.MV

STATISTICAL ANALYSIS

SPEC LIMIT	400.MV
MEAN	166.MV
STD DEV	18.9MV
MEDIAN	165.MV
MIN VALUE	135.MV
MAX VALUE	230.MV
NUMBER	27

POST 2000HR DATA

OUTPUT VOLTAGE HIGH (VOH1) AT 125 C

SERIAL NO.	
4	4.32 V
5	4.32 V
6	4.32 V
7	4.32 V
8	4.33 V
9	4.34 V
10	4.32 V
11	4.34 V
12	4.33 V
13	4.32 V
14	4.30 V
15	4.33 V
16	4.33 V
17	4.30 V
18	4.32 V
19	4.33 V
20	4.34 V
21	4.28 V
22	4.32 V
23	4.34 V
25	4.30 V
26	4.34 V
27	4.32 V
28	4.32 V
30	4.32 V
31	4.34 V
33	4.32 V
34	4.32 V
35	4.33 V

STATISTICAL ANALYSIS

SPEC LIMIT	3.60 V
MEAN	4.32 V
STD DEV	14.2MV
MEDIAN	4.32 V
MIN VALUE	4.28 V
MAX VALUE	4.34 V
NUMBER	27

POST 2000HR DATA

OUTPUT VOLTAGE HIGH (VOH2) AT 125 C

SERIAL NO.	
4	4.83 V
5	4.82 V
6	4.82 V
7	4.82 V
8	4.83 V
9	4.84 V
10	4.83 V
11	4.84 V
12	4.83 V
13	4.82 V
14	4.80 V
15	4.82 V
16	4.83 V
17	4.81 V
18	4.83 V
19	4.83 V
20	4.84 V
21	4.79 V
22	4.82 V
23	4.84 V
25	4.80 V
26	4.84 V
27	4.83 V
28	4.82 V
30	4.83 V
31	4.84 V
33	4.82 V
34	4.82 V
35	4.82 V

STATISTICAL ANALYSIS

SPEC LIMIT	4.60 V
MEAN	4.82 V
STD DEV	12.2MV
MEDIAN	4.83 V
MIN VALUE	4.79 V
MAX VALUE	4.84 V
NUMBER	27

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ORIGINAL PAGE IS POOR

POST 2000HR DATA

AVERAGE INPUT LOW CURRENT (IIL) AT 125 C

SERIAL NO.	
4	-276.NA
5	-386.NA
6	-151.NA
7	-308.NA
8	-102.NA
9	-469.NA
10	-241.NA
11	-142.NA
12	-230.NA
13	-164.NA
14	-167.NA
15	-255.NA
16	-106.NA
17	-153.NA
18	-213.NA
19	-142.NA
20	-101.NA
21	-133.NA
22	-477.NA
23	-294.NA
25	-153.NA
26	-139.NA
27	-120.NA
28	-156.NA
30	-223.NA
31	-408.NA
33	-242.NA
34	-243.NA
35	-239.NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-214.NA
STD DEV	102.NA
MEDIAN	-167.NA
MIN VALUE	-477.NA
MAX VALUE	-101.NA
NUMBER	27

POST 2000HR DATA

WORST CASE INPUT LOW CURRENT (IIL) AT 125 C

SERIAL NO.	
4	-288.NA
5	-415.NA
6	-157.NA
7	-362.NA
8	-114.NA
9	-494.NA
10	-254.NA
11	-156.NA
12	-238.NA
13	-174.NA
14	-175.NA
15	-266.NA
16	-115.NA
17	-166.NA
18	-221.NA
19	-147.NA
20	-112.NA
21	-167.NA
22	-508.NA
23	-323.NA
25	-170.NA
26	-150.NA
27	-135.NA
28	-174.NA
30	-242.NA
31	-450.NA
33	-262.NA
34	-271.NA
35	-255.NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	-232.NA
STD DEV	109.NA
MEDIAN	-175.NA
MIN VALUE	-508.NA
MAX VALUE	-112.NA
NUMBER	27

POST 2000HR DATA

AVERAGE INPUT HIGH CURRENT (IIH) AT 125 C

SERIAL NO.	
4	300.NA
5	394.NA
6	168.NA
7	333.NA
8	117.NA
9	464.NA
10	263.NA
11	130.NA
12	237.NA
13	152.NA
14	181.NA
15	263.NA
16	114.NA
17	167.NA
18	224.NA
19	156.NA
20	102.NA
21	137.NA
22	506.NA *
23	325.NA
25	169.NA
26	145.NA
27	126.NA
28	169.NA
30	223.NA
31	412.NA
33	269.NA
34	248.NA
35	243.NA

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	224.NA
STD DEV	105.NA
MEDIAN	181.NA
MIN VALUE	102.NA
MAX VALUE	506.NA
NUMBER	27

POST 2000HR DATA

WORST CASE INPUT HIGH CURRENT (IIH) AT 125 C

SERIAL NO.		
4	353.NA	
5	442.NA	
6	202.NA	
7	377.NA	
8	133.NA	
9	530.NA	*
10	295.NA	
11	150.NA	
12	265.NA	
13	187.NA	
14	211.NA	
15	303.NA	
16	124.NA	
17	188.NA	
18	259.NA	
19	174.NA	
20	120.NA	
21	170.NA	
22	560.NA	*
23	500.NA	*
25	184.NA	
26	173.NA	
27	152.NA	
28	196.NA	
30	273.NA	
31	471.NA	
33	297.NA	
34	280.NA	
35	286.NA	

STATISTICAL ANALYSIS

SPEC LIMIT	500.NA
MEAN	261.NA
STD DEV	124.NA
MEDIAN	211.NA
MIN VALUE	120.NA
MAX VALUE	560.NA
NUMBER	27

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

POST 2000HR DATA

SUPPLY CURRENT (ICC180) AT 125 C

SERIAL NO.	
4	795.UA
5	275.UA
6	197.UA
7	374.UA
8	142.UA
9	466.UA
10	168.UA
11	178.UA
12	245.UA
13	163.UA
14	130.UA
15	396.UA
16	125.UA
17	112.UA
18	143.UA
19	137.UA
20	110.UA
21	96.0UA
22	327.UA
23	275.UA
25	227.UA
26	189.UA
27	167.UA
28	173.UA
30	361.UA
31	334.UA
33	172.UA
34	662.UA
35	281.UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	235.UA
STD DEV	129.UA
MEDIAN	178.UA
MIN VALUE	96.0UA
MAX VALUE	662.UA
NUMBER	27

POST 2000HR DATA

SUPPLY CURRENT (ICC1B1) AT 125 C

SERIAL NO.	
4	1.23MA *
5	313.UA
6	203.UA
7	335.UA
8	137.UA
9	408.UA
10	176.UA
11	184.UA
12	315.UA
13	186.UA
14	130.UA
15	351.UA
16	118.UA
17	117.UA
18	161.UA
19	125.UA
20	121.UA
21	99.5UA
22	281.UA
23	253.UA
25	356.UA
26	187.UA
27	162.UA
28	163.UA
30	523.UA
31	318.UA
33	1.44MA *
34	919.UA
35	269.UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	297.UA
STD DEV	278.UA
MEDIAN	187.UA
MIN VALLE	99.5UA
MAX VALLE	1.44MA
NUMBER	27

POST 2000HR DATA

SUPPLY CURRENT (ICC280) AT 125 C

SERIAL NO.	
4	781.UA
5	461.UA
6	213.UA
7	425.UA
8	153.UA
9	530.UA
10	179.UA
11	190.UA
12	281.UA
13	180.UA
14	142.UA
15	454.UA
16	140.UA
17	128.UA
18	150.UA
19	154.UA
20	120.UA
21	102.UA
22	876.UA
23	311.UA
25	240.UA
26	215.UA
27	137.UA
28	196.UA
30	359.UA
31	383.UA
33	223.UA
34	678.UA
35	321.UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	277.UA
STD DEV	181.UA
MEDIAN	213.UA
MIN VALUE	102.UA
MAX VALUE	876.UA
NUMBER	27

POST 2000HR DATA

SUPPLY CURRENT (ICC2B1) AT 125 C

SERIAL NO.	
4	906.UA
5	403.UA
6	163.UA
7	282.UA
8	114.UA
9	340.UA
10	134.UA
11	133.UA
12	208.UA
13	140.UA
14	100.UA
15	276.UA
16	91.9UA
17	96.6UA
18	117.UA
19	98.9UA
20	88.7UA
21	74.3UA
22	731.UA
23	204.UA
25	258.UA
26	144.UA
27	94.2UA
28	127.UA
30	373.UA
31	265.UA
33	1.52MA *
34	685.UA
35	207.UA

STATISTICAL ANALYSIS

SPEC LIMIT	1.00MA
MEAN	261.UA
STD DEV	294.UA
MEDIAN	144.UA
MIN VALUE	74.3UA
MAX VALUE	1.52MA
NUMBER	27

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

POST 2000HR DATA

OUTPUT LEAKAGE CURRENT (IOL) AT 125 C

SERIAL NO.	
4	23.6UA *
5	5.20UA *
6	1.29UA *
7	1.98UA *
8	911.NA
9	1.89UA *
10	2.44UA *
11	2.28UA *
12	3.73UA *
13	2.93UA *
14	1.28UA *
15	2.10UA *
16	940.NA
17	1.51UA *
18	2.71UA *
19	919.NA
20	1.44UA *
21	1.07UA *
22	1.66UA *
23	1.32UA *
25	5.24UA *
26	1.59UA *
27	863.NA
28	1.30UA *
30	14.4UA *
31	1.49UA *
33	2.23UA *
34	12.8UA *
35	2.15UA *

STATISTICAL ANALYSIS

SPEC LIMIT	1.00UA
MEAN	2.76UA
STD DEV	3.21UA
MEDIAN	1.66UA
MIN VALUE	863.NA
MAX VALUE	14.4UA
NUMBER	27