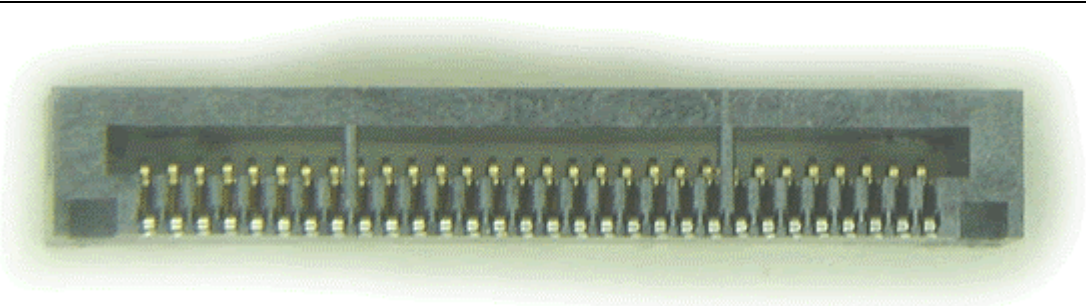




Project Number: N/A		Tracking Code: 0207--0609	
Requested by: Matt Baumann		Date: 2/22/02	Product Rev: Current
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "-H" 50u" thick Au Plating is non-standard.)		Lot #: 02/25/02	Tech: Troy Cook Eng: John Tozier
Part description: 1mm Mini Card Guide			Qty to test: 16
Test Start: 02/25/02	Test Completed: 3/18/02		



Durability Summary Report

PART DESCRIPTION

MB1-130-01-S-S-02-A1-N

&

MB1-130-01-H-S-02-A1-N

(The "-H" 50u" thick Au Plating is currently non-standard.)





Project Number: N/A		Tracking Code: 0207--0609	
Requested by: Matt Baumann		Date: 2/22/02	Product Rev: Current
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "H" 50u" thick Au Plating is non-standard.)		Lot #: 02/25/02	Tech: Troy Cook Eng: John Tozier
Part description: 1mm Mini Card Guide			Qty to test: 16
Test Start: 02/25/02	Test Completed: 3/18/02		

CERTIFICATION

All instruments and measuring equipment were calibrated to National Institute for Standards and Technology (NIST) traceable standards according to ISO 10012-1 and ANSI/NCSL 2540-1, as applicable.

All contents contained herein are the property of Samtec. No portion of this report, in part or in full shall be reproduced without prior written approval of Samtec.



Project Number: N/A		Tracking Code: 0207--0609	
Requested by: Matt Baumann		Date: 2/22/02	Product Rev: Current
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "H" 50u" thick Au Plating is non-standard.)		Lot #: 02/25/02	Tech: Troy Cook Eng: John Tozier
Part description: 1mm Mini Card Guide			Qty to test: 16
Test Start: 02/25/02	Test Completed: 3/18/02		

SCOPE

To perform the following tests: Durability up to 10,000 cycles.

APPLICABLE DOCUMENTS

Standards: EIA Publication 364

TEST SAMPLES AND PREPARATION

- 1) All materials were manufactured in accordance with the applicable product specification.
- 2) All test samples were identified and encoded to maintain trace-ability throughout the test sequences.
- 3) After soldering, the parts to be used for LLCRC testing were cleaned according to TLWI-0001:
 - a) Sample test boards are to be ultrasonically cleaned after test lead attachment, preparation and/or soldering using the following process.
 - b) Immerse the sample test boards into the Branson 3510 cleaner which contains Kyzen Ionox HC1 (or equivalent) cleaning solution with the following conditions:
 - i) Temperature: 55 ° C +/- 5 ° C
 - ii) Frequency: 40 KHz
 - iii) Immersion Time: 5 to 10 Minutes
 - c) Sample test boards are then slowly removed and placed into the Branson 3510 cleaner which contains deionized water with the following conditions:
 - i) Temperature: 55 ° C +/- 5 ° C
 - ii) Frequency: 40 KHz
 - iii) Immersion Time: 5 to 10 Minutes
 - d) Sample test boards are then removed and placed in a beaker, on a hot plate with a magnetic stirrer containing deionized water warmed to 55 ° C +/- 5 ° C for 1/2 to 1 minute (Use 55 ° C as target)
 - e) Upon removal, the sample test boards are then rinsed for 1/2 to 1 minute in room temperature free flowing deionized water.
 - f) After the final rinse, the sample test boards are to be dried in an air-circulating oven for 10 to 15 minutes at 50 ° C +/- 5 ° C (Use 50 ° C as target)
 - g) Sample test boards are then allowed to set and recover to room ambient condition prior to testing.
- 4) Parts not intended to be tested for LLCRC are visually inspected and cleaned if necessary.
- 5) Any additional preparation will be noted in the individual test procedures.



Project Number: N/A		Tracking Code: 0207--0609	
Requested by: Matt Baumann		Date: 2/22/02	Product Rev: Current
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "H" 50u" thick Au Plating is non-standard.)		Lot #: 02/25/02	Tech: Troy Cook Eng: John Tozier
Part description: 1mm Mini Card Guide			Qty to test: 16
Test Start: 02/25/02		Test Completed: 3/18/02	

FLOWCHART

- 1) Mating Boards are changed over every succeeding 500 cycles to isolate connector characterization.
- 2) All mating boards were plated with 30u" of hard gold.

TEST STEP	30 Au	50 Au
1	Contact Height	Contact Height
2	LLCR-1	LLCR-1
3	500 CYCLES	500 CYCLES
4	LLCR-2	LLCR-2
5	500 CYCLES	500 CYCLES
6	500 CYCLES	500 CYCLES
7	LLCR-3	LLCR-3
8	500 CYCLES	500 CYCLES
9	500 CYCLES	500 CYCLES
10	500 CYCLES	500 CYCLES
11	LLCR-4	LLCR-4
12	500 CYCLES	500 CYCLES
13	500 CYCLES	500 CYCLES
14	500 CYCLES	500 CYCLES
15	500 CYCLES	500 CYCLES
16	LLCR-5	LLCR-5
17	500 CYCLES	500 CYCLES
18	500 CYCLES	500 CYCLES
19	500 CYCLES	500 CYCLES
20	500 CYCLES	500 CYCLES
21	500 CYCLES	500 CYCLES
22	LLCR-6	LLCR-6
23	500 CYCLES	500 CYCLES
24	500 CYCLES	500 CYCLES
25	500 CYCLES	500 CYCLES
26	500 CYCLES	500 CYCLES
27	500 CYCLES	500 CYCLES
28	LLCR-7	LLCR-7
29	Contact Height	Contact Height



Project Number: N/A		Tracking Code: 0207--0609	
Requested by: Matt Baumann		Date: 2/22/02	Product Rev: Current
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "H" 50u" thick Au Plating is non-standard.)		Lot #: 02/25/02	Tech: Troy Cook Eng: John Tozier
Part description: 1mm Mini Card Guide			Qty to test: 16
Test Start: 02/25/02	Test Completed: 3/18/02		

ATTRIBUTE DEFINITION

Following is a brief, simplified description of each attribute measured.

CONTACT HEIGHT:

- 1) Heights above the surrounding plastic surface were measured before and after stressing the contacts (e.g. thermal aging, mechanical cycling, etc.).
- 2) Typically, all contacts on the connector are measured.

LLCR:

- 1) EIA-364-23, *Low Level Contact Resistance Test Procedure for Electrical Connectors and Sockets*.
- 2) A computer program, *LLCR 221.exe*, ensures repeatability for data acquisition.

MATING/UNMATING

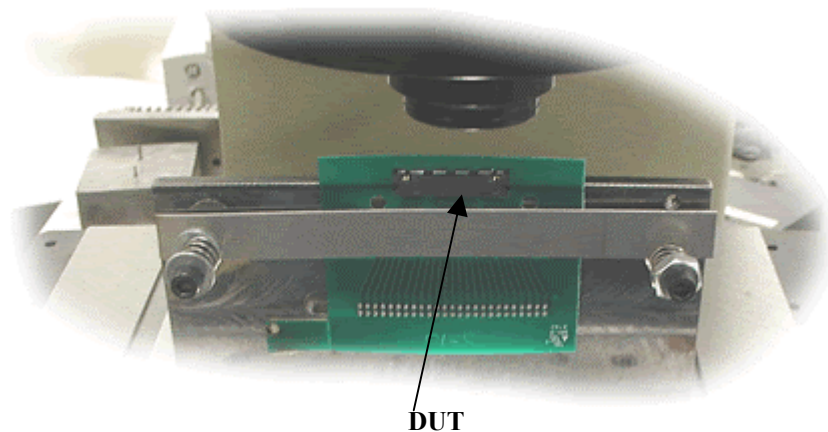
- 1) Reference document: EIA-364-13, *Mating and Unmating Forces Test Procedure for Electrical Connectors*.
- 2) The full insertion position was to within 0.003" to 0.004" of the plug bottoming out in the receptacle to prevent damage to the system under test.
- 3) One of the mating parts is secured to a floating X-Y table to prevent damage during cycling.
- 4) Testing is standardized according to TLWI 0012, *Mating-Unmating Force Measurements*.



Project Number: N/A		Tracking Code: 0207--0609	
Requested by: Matt Baumann		Date: 2/22/02	Product Rev: Current
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "H" 50u" thick Au Plating is non-standard.)		Lot #: 02/25/02	Tech: Troy Cook Eng: John Tozier
Part description: 1mm Mini Card Guide			Qty to test: 16
Test Start: 02/25/02	Test Completed: 3/18/02		

TEST SUMMARIES

CONTACT HEIGHT: Contact gaps were measured. The 50 u" "H" plated samples were not evaluated.

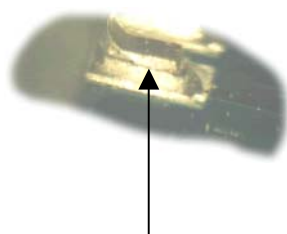


Initial								
Contact Height Spec:			Nominal	Minimum	Maximum			
			0.031	0.028	0.034			
Inches	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Sample 7	Sample 8
Minimum	0.0333	0.0329	0.032	0.0334	0.0329	0.0324	0.0326	0.0317
Maximum	0.0369	0.0365	0.0364	0.0373	0.0377	0.0369	0.0375	0.0362
Average	0.0347	0.0346	0.0339	0.0352	0.0349	0.0346	0.0346	0.0342
St. Dev.	0.001	0.0009	0.0011	0.001	0.0012	0.0012	0.0013	0.0012
Count	30	30	30	30	30	30	30	30
After Mating 10,000 Cycles								
Inches	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Sample 7	Sample 8
Minimum	0.0268	See Note#1	0.029	0.0005	See Note#1	0.0283	0.0035	See Note#1
Maximum	0.0334		0.0348	0.0282		0.0337	0.0218	
Average	0.0284		0.0311	0.0189		0.0306	0.0156	
St. Dev.	0.0014		0.0014	0.0117		0.0013	0.0029	
Count	30		30	30		30	30	
NOTE: 1. Connector angled on the PCB. Could not get a true measurement on the gap width. Disregard results for PCB.								

Project Number: N/A		Tracking Code: 0207--0609				
Requested by: Matt Baumann		Date: 2/22/02		Product Rev: Current		
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "H" 50u" thick Au Plating is non-standard.)			Lot #: 02/25/02		Tech: Troy Cook	Eng: John Tozier
Part description: 1mm Mini Card Guide					Qty to test: 16	
Test Start: 02/25/02		Test Completed: 3/18/02				

LLCR 30 micro-Inch Gold Plating:

- 1) Three connectors broke during cycling and are not included here. (shown in results on previous page)
- 2) One high reading (delta LLCR) was attributed to fractured solder joint.
(The 17.4 milliohms reading shown below at 7500 Cycles)
- 3) The preceding (5000 Cycles) and succeeding test (10,000 Cycles) on this position showed OPEN
- 4) Nearly all solder locks failed during testing
 - a) As a result, abnormally high stresses were placed on the solder joints.



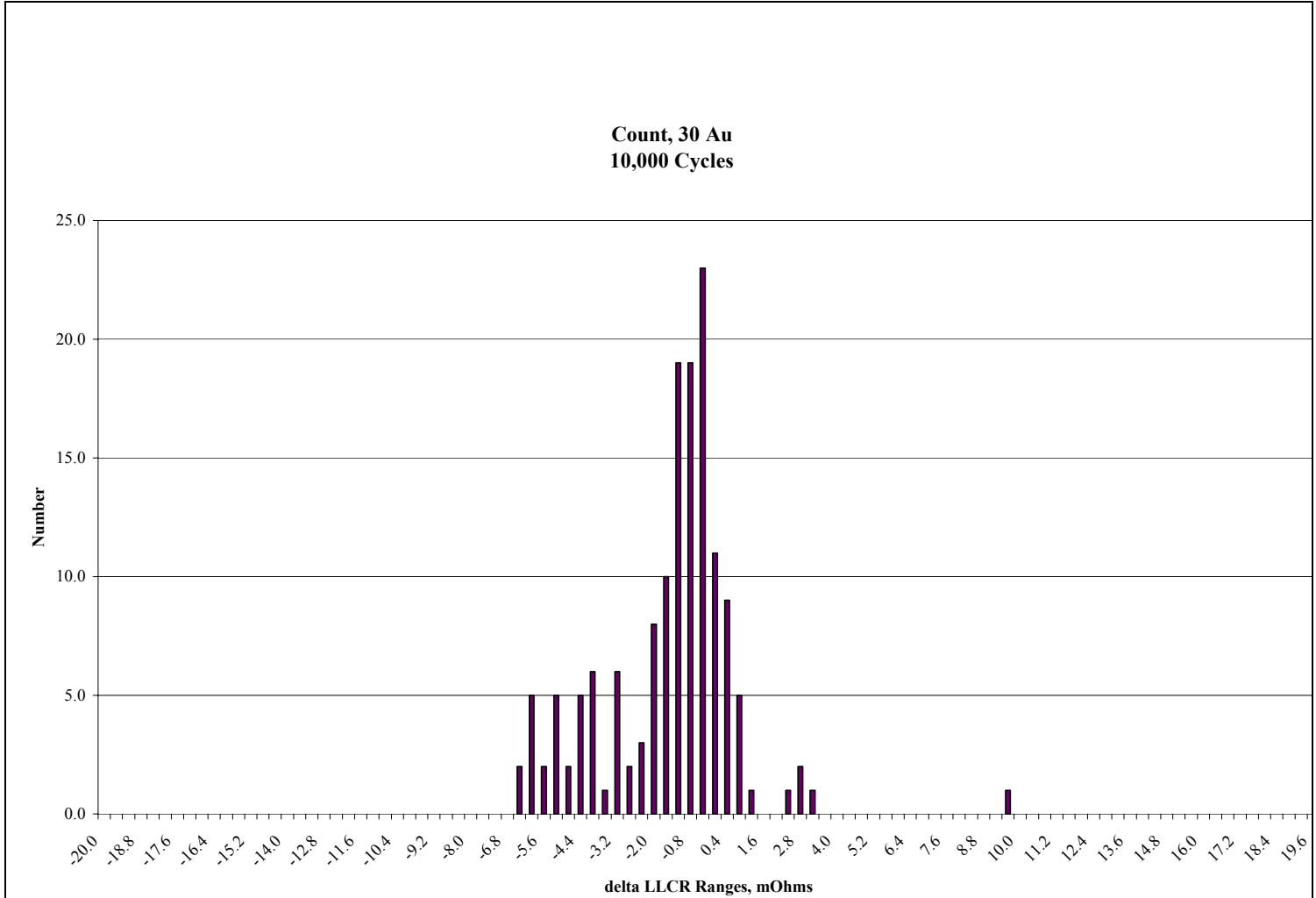
Solder Joint Fracture

30 Au Samples

Date	Feb. 26 2002	Mar. 01 2002	Mar. 07 2002	Mar. 11 2002	Mar. 13 2002	Mar. 14 2002	Mar. 15 2002
Room Temp C	23	23	20	22	23	23	20
RH	27%	21%	26%	20%	33%	33%	41%
Initials	Troy Cook						
mOhm values	Actual Initial	Delta 500 Cycles	Delta 1500 cycles	Delta 3000 Cycles	Delta 5000 Cycles	Delta 7500 Cycles	Delta 10000 Cycles
Average	16.4	-1.8	-2.0	-1.9	-1.6	-1.8	-1.7
St. Dev.	2.0	2.1	1.9	1.9	2.2	2.5	2.2
Min	13.9	-8.0	-7.0	-6.9	-6.9	-6.8	-6.7
Max	21.8	0.9	0.6	2.2	5.2	17.4	9.4
Count	150	150	150	150	149	150	149
Broken Solder Joint	0	0	0	0	1	0	1



Project Number: N/A		Tracking Code: 0207--0609	
Requested by: Matt Baumann	Date: 2/22/02	Product Rev: Current	
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "H" 50u" thick Au Plating is non-standard.)	Lot #: 02/25/02	Tech: Troy Cook	Eng: John Tozier
Part description: 1mm Mini Card Guide			Qty to test: 16
Test Start: 02/25/02	Test Completed: 3/18/02		



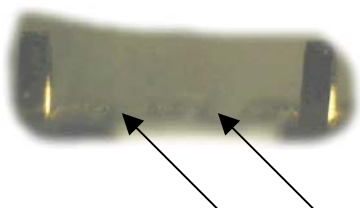
The chart shown above characterizes the final change in LLCR results after the 10,000 cycles.



Project Number: N/A		Tracking Code: 0207--0609			
Requested by: Matt Baumann		Date: 2/22/02		Product Rev: Current	
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "H" 50u" thick Au Plating is non-standard.)		Lot #: 02/25/02		Tech: Troy Cook	Eng: John Tozier
Part description: 1mm Mini Card Guide				Qty to test: 16	
Test Start: 02/25/02		Test Completed: 3/18/02			

LLCR 50 micro-Inch Gold Plating:

- 1) Two connectors broke during cycling and are not included here
- 2) Three open circuits (delta LLCR) were attributed to various fatigue & fractured parts.
 - Board 1, P1 and P2 (Fractured solder joints)
 - Board 5, P1 (Fractured solder Joints)
 - Board 8, P23 and P24 (Fractured contacts)
- 3) Nearly all solder locks failed during testing
 - a) As a result, abnormally high stresses were placed on the solder joints.

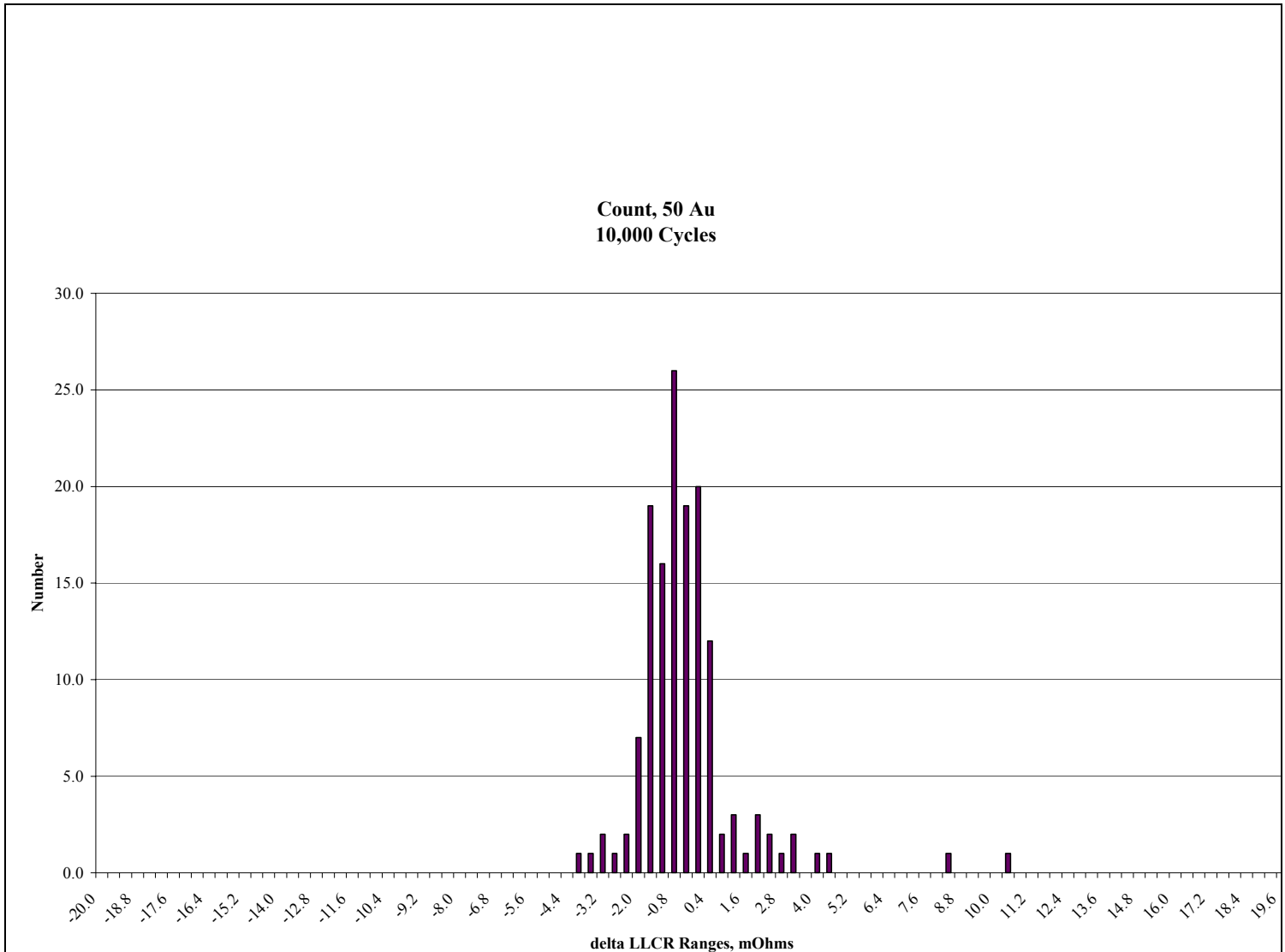


Location of Missing Contacts P23 and P24

Date	Feb. 26 2002	Mar. 01 2002	Mar. 07 2002	Mar. 12 2002	Mar. 13 2002	Mar. 15 2002	Mar. 18 2002
Room Temp C	Room Temp (deg C)	23	21	22	23	21	23
RH	Rel Humidity:	21%	27%	28%	37%	44%	36%
Initials	Troy Cook						
mOhm values	Actual Initial	Delta 500 Cycles	Delta 1500 Cycles	Delta 3000 Cycles	Delta 5000 Cycles	Delta 7500 Cycles	Delta 10000 Cycles
Average	15.1	-1.1	-1.0	-0.7	-1.0	-0.9	-0.5
St. Dev.	0.8	0.7	0.9	1.2	1.2	1.4	2.5
Min	13.7	-3.5	-4.9	-4.3	-4.8	-4.9	-4.2
Max	18.4	0.3	0.7	3.5	2.8	8.3	20.3
Count	150	150	150	149	149	148	145
Broken Solder Joint	0	0	0	1	1	2	5



Project Number: N/A		Tracking Code: 0207--0609	
Requested by: Matt Baumann		Date: 2/22/02	Product Rev: Current
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "H" 50u" thick Au Plating is non-standard.)		Lot #: 02/25/02	Tech: Troy Cook Eng: John Tozier
Part description: 1mm Mini Card Guide			Qty to test: 16
Test Start: 02/25/02	Test Completed: 3/18/02		



The chart shown above characterizes the final change in LLCR results after the 10,000 cycles.



Project Number: N/A		Tracking Code: 0207--0609	
Requested by: Matt Baumann		Date: 2/22/02	Product Rev: Current
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "-H" 50u" thick Au Plating is non-standard.)		Lot #: 02/25/02	Tech: Troy Cook Eng: John Tozier
Part description: 1mm Mini Card Guide			Qty to test: 16
Test Start: 02/25/02		Test Completed: 3/18/02	

DATA

CONTACT HEIGHT 30 Au, Before Durability Testing:

Test Date:	2/25/2002
Operator:	TC
Temperature (C):	23
Humidity (RH):	28%
Equipment Code Number	26
Contact Description	30 Au
Contact Used In:	MB1

Sample#	B1	B2	B3	B4	B5	B6	B7	B8
1	0.0358	0.0354	0.0358	0.0368	0.0365	0.0363	0.0370	0.0354
2	0.0351	0.0357	0.0355	0.0363	0.0346	0.0361	0.0363	0.0355
3	0.0367	0.0365	0.0364	0.0373	0.0377	0.0369	0.0375	0.0362
4	0.0360	0.0350	0.0352	0.0359	0.0357	0.0358	0.0356	0.0350
5	0.0369	0.0357	0.0357	0.0361	0.0363	0.0364	0.0366	0.0358
6	0.0345	0.0338	0.0340	0.0346	0.0348	0.0347	0.0350	0.0337
7	0.0352	0.0352	0.0347	0.0361	0.0362	0.0362	0.0359	0.0350
8	0.0341	0.0335	0.0341	0.0344	0.0340	0.0344	0.0337	0.0332
9	0.0349	0.0342	0.0345	0.0354	0.0352	0.0350	0.0349	0.0344
10	0.0335	0.0336	0.0328	0.0344	0.0336	0.0327	0.0337	0.0326
11	0.0343	0.0341	0.0339	0.0345	0.0346	0.0340	0.0342	0.0332
12	0.0335	0.0329	0.0328	0.0337	0.0340	0.0332	0.0333	0.0321
13	0.0348	0.0342	0.0335	0.0347	0.0345	0.0346	0.0344	0.0337
14	0.0340	0.0330	0.0331	0.0334	0.0330	0.0330	0.0328	0.0317
15	0.0358	0.0350	0.0344	0.0359	0.0354	0.0348	0.0351	0.0344
16	0.0333	0.0337	0.0335	0.0353	0.0336	0.0336	0.0336	0.0334
17	0.0340	0.0347	0.0337	0.0357	0.0349	0.0342	0.0340	0.0342
18	0.0333	0.0336	0.0322	0.0339	0.0329	0.0324	0.0326	0.0322
19	0.0348	0.0345	0.0334	0.0354	0.0348	0.0337	0.0343	0.0346
20	0.0334	0.0340	0.0325	0.0343	0.0338	0.0331	0.0337	0.0332
21	0.0344	0.0347	0.0331	0.0356	0.0347	0.0344	0.0340	0.0341
22	0.0338	0.0338	0.0320	0.0338	0.0337	0.0331	0.0330	0.0335
23	0.0351	0.0353	0.0340	0.0357	0.0353	0.0346	0.0343	0.0354
24	0.0335	0.0337	0.0328	0.0348	0.0335	0.0339	0.0334	0.0333
25	0.0353	0.0349	0.0340	0.0355	0.0347	0.0350	0.0348	0.0351
26	0.0344	0.0344	0.0335	0.0349	0.0350	0.0340	0.0342	0.0341
27	0.0361	0.0362	0.0347	0.0359	0.0362	0.0353	0.0357	0.0357
28	0.0346	0.0350	0.0336	0.0348	0.0357	0.0350	0.0345	0.0343
29	0.0362	0.0361	0.0350	0.0364	0.0368	0.0366	0.0361	0.0361
30	0.0345	0.0347	0.0335	0.0349	0.0347	0.0350	0.0346	0.0347



Project Number: N/A		Tracking Code: 0207--0609	
Requested by: Matt Baumann		Date: 2/22/02	Product Rev: Current
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "-H" 50u" thick Au Plating is non-standard.)		Lot #: 02/25/02	Tech: Troy Cook Eng: John Tozier
Part description: 1mm Mini Card Guide			Qty to test: 16
Test Start: 02/25/02		Test Completed: 3/18/02	

CONTACT HEIGHT 30 Au, After Durability Testing:

Test Date:	3/18/2002
Operator:	TC
Temperature (C):	24
Humidity (RH):	38%
Equipment Code Number	26
Contact Description	30 Au
Contact Used In:	MB1

Sample#	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Sample 7	Sample 8
1	0.0299		0.0338	0.0282		0.0337	0.0187	
2	0.0293		0.0337	0.0028		0.0331	0.0183	
3	0.0304		0.0348	0.0027		0.0325	0.0035	
4	0.0282		0.0327	0.0269		0.0317	0.0165	
5	0.0288		0.0328	0.0274		0.0325	0.0175	
6	0.0274		0.0311	0.0258		0.0308	0.0164	
7	0.0279		0.0318	0.027		0.0313	0.0168	
8	0.027		0.0314	0.0257		0.0304	0.0152	
9	0.0334		0.0313	0.0261		0.0314	0.0218	
10	0.0273		0.0298	0.0255		0.0288	0.0149	
11	0.0278		0.0308	0.0013		0.03	0.0155	
12	0.0268		0.0298	0.0012		0.0294	0.0145	
13	0.0278		0.0304	0.0007		0.0306	0.0152	
14	0.0268		0.0304	0.0005		0.0294	0.0145	
15	0.0285	See Note#1	0.0312	0.0266	See Note#1	0.031	0.0157	See Note#1
16	0.027		0.0304	0.026		0.0295	0.0146	
17	0.0284		0.0306	0.0265		0.0302	0.0148	
18	0.0271		0.0293	0.0007		0.0283	0.0137	
19	0.0282		0.0305	0.0009		0.0297	0.0148	
20	0.0278		0.0296	0.0015		0.0293	0.0146	
21	0.0286		0.0305	0.0266		0.0307	0.0151	
22	0.0269		0.029	0.0247		0.0291	0.0142	
23	0.029		0.0307	0.0264		0.0304	0.0157	
24	0.0272		0.03	0.026		0.0294	0.0147	
25	0.0286	0.0308	0.0267	0.0308	0.0161			
26	0.028	0.0307	0.0262	0.0302	0.0159			
27	0.0299	0.0319	0.0271	0.0313	0.0179			
28	0.0286	0.0308	0.0262	0.0306	0.0171			
29	0.0294	0.0319	0.0273	0.0323	0.0187			
30	0.0285	0.0304	0.0259	0.031	0.0167			

NOTE: 1. Connector angled on the PCB. Could not get a true measurement on the gap width. Disregard results for PCB.



Project Number: N/A		Tracking Code: 0207--0609	
Requested by: Matt Baumann		Date: 2/22/02	Product Rev: Current
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "H" 50u" thick Au Plating is non-standard.)		Lot #: 02/25/02	Tech: Troy Cook Eng: John Tozier
Part description: 1mm Mini Card Guide			Qty to test: 16
Test Start: 02/25/02		Test Completed: 3/18/02	

CONTACT HEIGHT 50 Au, Before Durability Testing:

Test Date:	2/25/2002
Operator:	TC
Temperature (C):	23
Humidity (RH):	28%
Equipment Code Number	26
Contact Description	50 Au
Contact Used In:	MB1

Sample#	B1	B2	B3	B4	B5	B6	B7	B8
1	0.0357	0.0345	0.0339	0.0350	0.0353	0.0365	0.0342	0.0352
2	0.0379	0.0376	0.0361	0.0364	0.0371	0.0382	0.0358	0.0372
3	0.0366	0.0357	0.0346	0.0347	0.0364	0.0362	0.0347	0.0387
4	0.0372	0.0364	0.0353	0.0358	0.0370	0.0372	0.0356	0.0371
5	0.0364	0.0354	0.0342	0.0340	0.0352	0.0357	0.0343	0.0350
6	0.0368	0.0356	0.0343	0.0345	0.0359	0.0365	0.0350	0.0353
7	0.0353	0.0347	0.0337	0.0327	0.0343	0.0349	0.0336	0.0344
8	0.0361	0.0349	0.0348	0.0349	0.0356	0.0370	0.0346	0.0355
9	0.0354	0.0345	0.0330	0.0336	0.0335	0.0358	0.0331	0.0341
10	0.0350	0.0351	0.0338	0.0334	0.0343	0.0369	0.0342	0.0343
11	0.0345	0.0335	0.0320	0.0327	0.0332	0.0342	0.0329	0.0327
12	0.0360	0.0343	0.0341	0.0335	0.0345	0.0356	0.0339	0.0342
13	0.0351	0.0334	0.0324	0.0327	0.0336	0.0353	0.0324	0.0335
14	0.0349	0.0339	0.0333	0.0336	0.0350	0.0360	0.0335	0.0343
15	0.0358	0.0349	0.0335	0.0362	0.0341	0.0361	0.0330	0.0338
16	0.0360	0.0352	0.0345	0.0426	0.0350	0.0366	0.0337	0.0348
17	0.0346	0.0328	0.0331	0.0382	0.0334	0.0351	0.0321	0.0332
18	0.0349	0.0337	0.0342	0.0353	0.0342	0.0357	0.0332	0.0341
19	0.0351	0.0340	0.0337	0.0340	0.0341	0.0341	0.0331	0.0337
20	0.0355	0.0352	0.0343	0.0348	0.0352	0.0355	0.0336	0.0348
21	0.0343	0.0338	0.0328	0.0334	0.0340	0.0345	0.0322	0.0331
22	0.0357	0.0345	0.0340	0.0345	0.0351	0.0360	0.0331	0.0347
23	0.0350	0.0343	0.0329	0.0341	0.0339	0.0347	0.0328	0.0339
24	0.0361	0.0351	0.0344	0.0355	0.0351	0.0357	0.0338	0.0349
25	0.0348	0.0340	0.0333	0.0347	0.0345	0.0362	0.0328	0.0339
26	0.0366	0.0354	0.0344	0.0361	0.0363	0.0374	0.0346	0.0355
27	0.0355	0.0343	0.0342	0.0349	0.0346	0.0364	0.0339	0.0344
28	0.0372	0.0350	0.0356	0.0364	0.0362	0.0383	0.0354	0.0395
29	0.0361	0.0356	0.0345	0.0346	0.0354	0.0365	0.0337	0.0347
30	0.0369	0.0359	0.0350	0.0356	0.0362	0.0369	0.0347	0.0358



Project Number: N/A		Tracking Code: 0207--0609			
Requested by: Matt Baumann		Date: 2/22/02		Product Rev: Current	
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "H" 50u" thick Au Plating is non-standard.)			Lot #: 02/25/02		Tech: Troy Cook Eng: John Tozier
Part description: 1mm Mini Card Guide				Qty to test: 16	
Test Start: 02/25/02		Test Completed: 3/18/02			

CONTACT HEIGHT 50 Au, After Durability Testing:

Test Date:	3/18/2002
Operator:	TC
Temperature (C):	24
Humidity (RH):	40%
Equipment Code Number	26
Contact Description	50 Au
Contact Used In:	MB1

Sample#	B1	B2	B3	B4	B5	B6	B7	B8
1	0.0298	0.0294	0.0291		0.0302		0.0138	0.0315
2	0.0314	0.0312	0.0308		0.0309		0.0154	Note 2
3	0.0302	0.0303	0.0295		0.0303		0.0139	
4	0.0306	0.0306	0.0301		0.0313		0.0147	0.0326
5	0.0300	0.0297	0.0291		0.0298		0.0132	0.0312
6	0.0304	0.0300	0.0290		0.0302		0.0141	0.0313
7	0.0287	0.0287	0.0284		0.0306		0.0129	0.0298
8	0.0300	0.0289	0.0286		0.0319		0.0136	0.0309
9	0.0343	0.0282	0.0280		0.0275		0.0122	0.0302
10	0.0291	0.0291	0.0284		0.0301		0.0136	0.0287
11	0.0287	0.0282	0.0274		0.0294		0.0121	0.0288
12	0.0301	0.0287	0.0288		0.0285		0.0132	0.0298
13	0.0286	0.0277	0.0271		0.0293		0.0118	0.0288
14	0.0291	0.0284	0.0284		0.0298		0.0132	0.0304
15	0.0290	0.0287	0.0285	Note 1	0.0281	Note 1	0.0119	0.0290
16	0.0297	0.0292	0.0295		0.0286		0.0128	0.0302
17	0.0284	0.0278	0.0279		0.0277		0.0112	0.0289
18	0.0292	0.0285	0.0294		0.0287		0.0127	0.0303
19	0.0284	0.0282	0.0285		0.0285		0.0121	0.0291
20	0.0295	0.0293	0.0292		0.0294		0.0126	0.0302
21	0.0286	0.0282	0.0280		0.0286		0.0119	0.0288
22	0.0369	0.0287	0.0291		0.0292		0.0194	0.0300
23	0.0290	0.0285	0.0287		0.0288		0.0125	0.0299
24	0.0301	0.0292	0.0299		0.0295		0.0131	0.0305
25	0.0291	0.0282	0.0285		0.0295		0.0118	0.0294
26	0.0302	0.0293	0.0299		0.0310		0.0135	0.0314
27	0.0293	0.0290	0.0298		0.0299		0.0133	0.0301
28	0.0312	0.0293	0.0307		0.0312		0.0144	0.0347
29	0.0301	0.0300	0.0295		0.0300		0.0123	0.0306
30	0.0313	0.0297	0.0302		0.0312		0.0128	0.0319

NOTES: 1. Connector was angled on the PCB. Could not get a true measurement on the gap width (disregard results)
 2. PCB-7 had contacts missing in the 2nd and 3rd positions.



Project Number: N/A		Tracking Code: 0207--0609					
Requested by: Matt Baumann			Date: 2/22/02		Product Rev: Current		
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "H" 50u" thick Au Plating is non-standard.)				Lot #: 02/25/02		Tech: Troy Cook	Eng: John Tozier
Part description: 1mm Mini Card Guide						Qty to test: 16	
Test Start: 02/25/02		Test Completed: 3/18/02					

LLCR 30 Au:

	Initial	Delta 500 Cycles	Delta 1500 cycles	Delta 3000 Cycles	Delta 5000 Cycles	Delta 7500 Cycles	Delta 10000 Cycles
Date	Feb. 26 2002	Mar. 01 2002	Mar. 07 2002	Mar. 11 2002	Mar. 13 2002	Mar. 14 2002	Mar. 15 2002
Room Temp C	23	23	20	22	23	23	20
RH	27%	21%	26%	20%	33%	33%	41%
Initials	Troy Cook	Troy Cook	Troy Cook	Troy Cook	Troy Cook	Troy Cook	Troy Cook

Sample 1 Position																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Initial	15.6	15.2	14.9	14.8	16.4	15.6	15.6	15.5	14.9	15.5	16.2	15.5	15.5	15.6	15.2	15.3	16.5	15.9	16.6	14.9	14.6	14.8	15.0	15.7	15.1
Delta 500 Cycles	-1.4	-1.6	-0.9	-1.1	-1.3	-1.8	-1.2	-0.6	-0.7	-0.8	-1.5	-0.7	-1.0	-1.3	0.9	-0.5	-1.7	0.1	-2.4	-0.2	-0.5	0.1	-0.6	-1.2	0.4
Delta 1500 cycles	-1.4	-1.5	-1.1	-1.4	-2.5	-2.1	-1.7	-1.4	-1.3	-0.9	-2.0	-1.5	-1.5	-1.2	0.1	0.6	-1.5	-1.3	-2.4	-0.2	-0.4	-0.7	-1.5	-1.3	-0.4
Delta 3000 Cycles	-0.9	-1.2	-1.3	-0.3	-2.1	-1.8	0.5	0.8	-0.8	-0.1	-0.6	-0.8	-1.5	-0.6	-0.6	2.2	-0.1	0.4	-1.5	-0.7	-0.1	-0.5	-1.1	-1.2	-1.0
Delta 5000 Cycles	-1.4	-1.6	-1.5	-0.9	-1.9	-1.7	-1.0	4.6	-0.3	-0.6	-1.6	-1.1	-1.1	-0.1	5.2	3.2	-0.3	-0.1	-1.7	0.1	-0.1	-0.3	-1.1	-1.4	-0.9
Delta 7500 Cycles	-1.2	-1.0	-0.4	-0.8	-2.0	-1.0	-0.9	0.1	-0.8	-1.3	-1.3	-0.3	-0.5	-0.5	1.3	-0.2	-1.5	-0.4	-2.3	-0.2	-1.0	-0.9	-0.7	-0.8	0.2
Delta 10000 Cycles	-1.4	-0.2	-0.3	-1.0	-2.2	-1.3	-1.0	2.9	-0.7	-0.3	-1.6	-1.3	-0.6	-0.9	-0.2	2.6	-1.2	-0.5	-2.1	-0.5	-0.4	-1.5	-1.3	0.0	2.2
Sample 3 Position																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Initial	17.1	16.2	15.4	14.7	16.9	15.1	16.0	15.7	15.9	16.5	15.6	15.5	16.1	15.2	16.0	16.0	16.4	15.3	15.6	15.0	14.8	14.6	14.2	15.3	15.3
Delta 500 Cycles	-2.4	-2.0	-0.5	-0.4	-2.7	-0.6	-1.0	-1.2	-0.4	-2.0	-1.1	-0.9	-0.4	-0.9	-0.6	-0.9	-1.4	-0.4	-0.1	0.8	-0.4	-0.1	-0.1	-0.8	-0.7
Delta 1500 cycles	-2.5	-1.6	-0.8	-0.8	-2.3	-0.4	-0.8	-0.4	-1.3	-0.2	-0.6	-1.0	-0.5	-0.6	-0.6	-1.2	-1.5	-0.4	-0.7	0.6	-0.6	-0.5	0.3	-0.5	-0.2
Delta 3000 Cycles	-3.3	-2.0	-0.7	-1.3	-3.1	-1.1	-1.5	-1.4	-1.0	-1.6	-1.6	-1.7	-1.0	-0.8	-1.1	-1.3	-1.5	-0.7	-1.2	-0.7	-1.0	-0.7	-0.2	-1.3	-0.5
Delta 5000 Cycles	-2.7	-2.6	-0.9	-0.7	-3.0	-1.5	-1.7	-1.6	-1.2	-1.4	-1.3	-1.2	-1.1	-0.9	-0.9	-1.4	-1.4	-1.6	-0.7	-0.2	-0.3	0.8	-0.5	-1.2	-0.5
Delta 7500 Cycles	-2.3	-1.6	-1.7	-1.3	-2.4	-1.2	-1.0	-2.0	-0.6	-1.7	-1.5	-1.2	-0.7	-0.9	-0.1	-1.0	-2.2	-1.2	-0.2	0.2	-0.4	-0.2	-0.3	-0.9	-0.2
Delta 10000 Cycles	-3.1	-2.3	-2.0	-1.8	-2.6	-1.4	-1.3	-1.3	-0.9	-1.5	-1.3	-1.2	-1.5	-0.9	-0.6	-1.4	-1.9	-1.0	-0.5	-0.3	-0.9	-0.6	-0.9	-0.9	0.0
Sample 4 Position																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Initial	15.8	14.2	14.1	15.2	14.8	14.3	14.9	14.1	14.3	14.9	15.6	14.4	15.3	14.3	15.0	15.1	14.9	14.6	14.5	14.8	13.9	15.0	14.5	14.7	15.5
Delta 500 Cycles	-1.4	-0.1	-0.8	-1.2	0.2	0.3	-0.8	0.0	-0.5	-0.3	-1.5	-0.9	-0.7	-0.6	-0.5	-1.2	-0.3	0.3	-0.2	-1.0	-0.1	-0.8	0.1	-1.1	-0.8
Delta 1500 cycles	-0.7	0.0	0.6	-0.5	-0.5	0.6	-0.7	-0.2	0.1	-0.4	-1.7	0.5	0.3	-0.3	-0.7	-0.6	-0.4	0.0	0.3	-0.2	0.6	0.1	0.1	0.3	-0.5
Delta 3000 Cycles	-1.6	-0.2	-0.8	-1.2	-0.1	0.9	-1.1	-0.1	1.3	-0.1	-0.5	-0.3	-0.2	0.4	0.0	0.0	1.1	0.2	1.7	-0.4	0.1	0.1	0.0	0.1	0.6
Delta 5000 Cycles	-0.5	0.2	-0.1	0.3	-0.7	-0.2	0.1	0.4	0.8	-0.2	-1.9	-0.5	-0.8	0.3	1.0	1.8	-0.1	-0.3	-0.4	0.4	0.1	-0.1	0.2	-0.3	0.2
Delta 7500 Cycles	-0.4	0.6	-0.4	0.0	0.2	0.0	-1.2	-0.4	-0.8	0.3	-0.2	0.1	-0.6	0.1	-0.5	0.5	0.3	-0.3	-0.4	-1.0	-0.7	-0.8	-0.6	-1.0	-1.3
Delta 10000 Cycles	-1.0	0.3	0.1	-0.7	0.4	0.1	-1.2	0.0	-0.5	0.4	-0.4	0.5	-0.4	-0.1	0.3	1.2	-0.2	2.8	-1.4	-0.7	-0.4	-0.2	-0.3	-0.4	0.0



Project Number: N/A										Tracking Code: 0207--0609														
Requested by: Matt Baumann										Date: 2/22/02					Product Rev: Current									
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "-H" 50u" thick Au Plating is non-standard.)										Lot #: 02/25/02					Tech: Troy Cook					Eng: John Tozier				
Part description: 1mm Mini Card Guide															Qty to test: 16									
Test Start: 02/25/02										Test Completed: 3/18/02														

Sample 6 Position																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Initial	14.9	14.1	15.4	15.0	15.6	15.0	15.8	15.1	15.5	16.0	16.4	15.0	16.6	16.1	15.9	15.5	14.9	16.5	15.5	15.6	14.3	15.0	15.3	14.8	16.4
Delta 500 Cycles	0.4	0.5	-1.0	0.0	-0.5	-0.1	-1.1	-0.5	-1.5	-1.3	-1.5	-0.2	-1.9	-0.9	-1.1	0.3	0.1	-1.4	-1.1	-1.4	-0.4	-1.0	-1.9	-1.2	-1.8
Delta 1500 cycles	-1.1	0.0	-2.2	-0.1	-1.5	-1.0	-1.6	-1.4	-1.5	-2.2	-2.2	-1.8	-2.1	-2.3	-1.6	-1.5	-1.1	-1.7	-1.4	-1.6	-1.0	-1.3	-1.4	-0.7	-2.1
Delta 3000 Cycles	-1.3	-0.9	-1.7	-1.0	-1.7	-1.4	-1.2	-1.0	-1.5	-2.3	-2.6	-1.7	-2.0	-2.0	-1.6	-0.1	-1.0	-2.2	-1.6	-1.6	-0.3	-1.5	-1.4	-1.7	-2.1
Delta 5000 Cycles	-0.6	-0.8	-1.6	-0.6	-0.6	-1.1	-1.0	-0.7	-0.8	-1.6	-0.2	-0.7	-0.3	-1.7	-1.0	-0.9	-0.9	-0.1	-0.3	-1.6	-0.2	-0.2	-0.9	-1.5	-2.0
Delta 7500 Cycles	-1.0	-1.0	-1.6	-0.4	-1.9	-1.2	-1.1	-1.0	-1.3	-1.6	-0.3	-1.4	-2.1	-2.1	-1.0	0.4	-0.9	-1.6	-1.5	-1.4	-0.7	-1.3	-1.1	-1.1	-1.9
Delta 10000 Cycles	-0.8	-0.5	-2.2	0.4	-1.9	-0.9	-1.0	0.0	0.7	-2.4	-0.6	-0.7	-0.6	-1.5	-2.0	0.2	-0.4	-2.2	-1.2	-1.8	-0.5	-1.6	-1.5	-1.4	-2.0
Sample 7 Position																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Initial	15.5	15.1	15.0	15.4	15.7	15.4	17.1	16.0	15.9	16.0	19.4	17.0	20.8	17.8	17.9	15.6	19.3	15.6	17.1	18.1	16.3	15.5	17.4	18.3	16.7
Delta 500 Cycles	-1.1	-0.4	-1.0	-0.9	-1.8	-1.7	-1.3	-1.3	-1.9	-1.7	-5.3	-2.6	-5.9	-3.3	-0.8	-0.5	-4.5	-0.8	-2.7	-4.1	-1.9	-1.8	-2.8	-2.2	-0.8
Delta 1500 cycles	-2.2	-1.5	-1.6	-2.3	-1.2	-1.1	-3.4	-1.5	-1.4	-2.0	-5.8	-3.8	-6.5	-4.1	-3.6	-2.1	-4.6	-1.1	-3.6	-4.9	-3.3	-2.6	-4.0	-5.1	-2.9
Delta 3000 Cycles	-0.8	-1.2	-1.7	-2.0	-1.4	-1.4	-3.0	-1.8	-1.6	-1.6	-5.5	-3.7	-6.7	-4.2	-3.5	-1.7	-4.4	-1.4	-3.6	-4.4	-2.8	-1.5	-3.5	-5.0	-0.7
Delta 5000 Cycles	-1.0	-0.3	0.1	-1.3	0.3	-0.3	-2.0	-1.7	-0.5	-0.8	-5.1	-3.4	-5.9	-3.1	-2.4	-1.0	-2.5	-0.7	-2.0	-3.4	-2.3	-1.1	-2.9	-5.3	0.0
Delta 7500 Cycles	-1.1	0.0	-1.1	-1.4	-0.7	-1.1	-3.0	-2.3	-1.5	-1.4	-5.2	-2.4	-4.4	-3.5	-3.6	-1.8	-4.1	-0.5	-2.1	-4.0	-2.6	-1.9	-3.7	-5.0	17.4
Delta 10000 Cycles	-0.8	-0.6	-0.3	-2.0	-0.8	-0.8	-3.3	-2.1	-1.4	-1.9	-5.6	-2.9	-6.4	-3.3	-3.6	-1.6	-4.1	-0.9	-3.5	-4.3	-2.5	-1.8	-3.9	-4.0	0.0



Project Number: N/A		Tracking Code: 0207--0609					
Requested by: Matt Baumann			Date: 2/22/02		Product Rev: Current		
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "H" 50u" thick Au Plating is non-standard.)				Lot #: 02/25/02		Tech: Troy Cook	Eng: John Tozier
Part description: 1mm Mini Card Guide						Qty to test: 16	
Test Start: 02/25/02		Test Completed: 3/18/02					

LLCR 50 Au:

	Initial	Delta 500 Cycles	Delta 1500 cycles	Delta 3000 Cycles	Delta 5000 Cycles	Delta 7500 Cycles	Delta 10000 Cycles
Date	Feb. 26 2002	Mar. 01 2002	Mar. 07 2002	Mar. 12 2002	Mar. 13 2002	Mar. 15 2002	Mar. 18 2002
Room Temp C		23	21	22	23	21	23
RH		21%	27%	28%	37%	44%	36%
Initials	Troy Cook	Troy Cook	Troy Cook	Troy Cook	Troy Cook	Troy Cook	Troy Cook

Sample 1 Position																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Initial	14.7	14.9	15.3	15.4	15.2	16.8	17.5	17.4	15.7	18.4	16.1	16.1	15.6	15.6	15.5	16.5	15.6	17.2	15.7	17.0	15.0	15.4	14.2	14.7	15.6
Delta 500 Cycles	-0.4	-0.6	-1.2	-0.8	-1.6	-2.7	-3.2	-2.1	-1.2	-3.5	-1.7	-0.7	-1.2	-1.2	-1.4	-1.9	-1.5	-2.9	-2.0	-3.0	-1.5	-1.2	-0.9	-1.3	-1.7
Delta 1500 cycles	-0.4	-1.3	-1.8	-1.5	-2.2	-1.8	-3.9	-1.9	-1.8	-4.9	-1.8	-1.8	-1.9	-1.4	-1.8	-1.9	-2.3	-3.2	-2.6	-3.6	-2.1	-1.6	-1.3	-1.5	-1.4
Delta 3000 Cycles	0.0	-1.1	-2.1	-1.8	-1.7	-2.4	-3.9	-2.0	-1.5	-4.3	-2.3	-2.2	-1.8	-1.5	-1.4	-2.5	-2.1	-3.5	-2.2	-4.0	-2.5	-1.5	-1.2	-1.8	-1.9
Delta 5000 Cycles	0.0	-1.8	-2.9	-2.7	-2.3	-2.9	-4.1	-2.3	-2.4	-4.8	-3.3	-3.0	-2.1	-1.0	-2.1	-2.7	-2.4	-3.1	-2.6	-4.3	-2.9	-1.8	-1.3	-2.0	-1.9
Delta 7500 Cycles	0.0	0.0	-2.7	-1.0	-2.5	-2.6	-3.5	-2.1	-2.5	-4.9	-3.0	-2.5	-2.7	-2.0	-2.1	-3.0	-2.6	-4.1	-3.1	-4.3	-3.0	-2.5	-2.0	-2.4	-1.3
Delta 10000 Cycles	0.0	0.0	-2.1	-2.1	-1.9	-3.4	-3.2	-1.8	-0.1	-3.9	-2.4	-1.9	-1.9	-0.8	0.9	-2.1	-1.9	-2.8	-0.3	-4.2	-2.8	-2.3	-1.9	-2.3	-0.9
Sample 2 Position																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Initial	14.5	14.0	13.7	13.8	14.0	14.3	14.4	15.5	14.6	14.7	14.3	14.6	14.3	14.5	14.2	15.7	14.3	14.2	14.3	14.7	15.1	16.0	14.7	14.9	15.5
Delta 500 Cycles	-1.1	-1.1	-0.9	-0.7	-0.7	-0.7	-0.8	-1.9	-0.7	-1.2	-1.0	-1.0	-0.2	-0.3	-0.8	-1.3	0.1	-0.7	-1.4	-0.7	-1.9	-2.1	-1.6	-1.7	-1.3
Delta 1500 cycles	-0.7	-0.3	-0.3	0.1	-0.9	-0.7	-0.6	-0.7	-0.8	-0.8	-0.6	-0.6	-0.8	-0.6	-0.7	-1.9	-0.5	-0.6	-0.3	-0.7	-1.4	-2.2	-1.4	-1.2	-1.1
Delta 3000 Cycles	-0.9	-0.1	-0.3	-0.3	-0.4	2.4	-0.9	-1.3	0.0	-0.4	1.8	0.2	2.7	3.5	0.2	-0.8	-0.6	-0.8	0.7	-1.3	-1.7	-2.4	-0.3	-1.0	-0.3
Delta 5000 Cycles	-0.9	-0.6	-0.7	-0.5	-1.3	-0.7	-0.9	-1.4	-0.9	0.1	-1.1	-0.8	-0.7	-0.5	-0.3	-1.1	-0.7	-0.6	-0.6	-1.3	-1.5	-2.6	-1.8	-1.5	0.5
Delta 7500 Cycles	-0.9	-1.1	-0.2	-0.8	-0.2	-0.6	-1.4	-1.9	-1.1	-0.9	-1.1	-1.6	-0.7	-0.9	-0.4	-1.8	-0.7	-1.1	-1.1	-1.1	-1.8	-2.2	-1.1	-1.6	-1.1
Delta 10000 Cycles	1.0	1.7	0.0	-0.1	-0.2	-0.3	-0.8	-1.1	-0.7	-0.4	-0.3	0.1	-0.4	-1.1	-0.9	-2.0	-0.9	-0.5	-0.3	-1.2	-1.7	-1.5	-0.1	-1.2	0.2
Sample 3 Position																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Initial	16.0	15.1	14.6	16.7	14.2	14.7	15.1	16.7	15.1	14.7	14.4	14.9	14.3	14.7	14.8	15.1	14.8	15.5	15.7	15.3	14.6	14.6	14.4	14.5	15.7
Delta 500 Cycles	-1.3	-1.0	-0.6	-2.2	-0.5	-0.4	-0.7	-1.8	-1.0	-0.3	-0.1	-0.5	-0.2	-0.5	-0.2	-0.4	-0.7	-0.4	-1.2	-0.7	-0.3	0.2	0.1	-0.3	-0.9
Delta 1500 cycles	-1.1	-0.6	-0.2	-1.6	-0.1	-0.3	0.3	-1.9	-0.6	0.5	-0.4	0.1	-0.1	0.0	-1.0	-0.6	-0.8	-0.6	-0.7	-1.2	0.1	0.0	-0.9	-0.8	-1.0
Delta 3000 Cycles	-0.3	-1.1	-0.6	-0.7	-0.1	-0.6	-1.1	-0.9	-0.5	1.1	0.2	-0.4	-0.1	0.7	0.3	0.7	-0.9	0.6	1.3	-0.8	0.3	0.3	-0.4	0.0	-0.6
Delta 5000 Cycles	-0.4	-0.9	-1.3	-1.7	-0.5	-1.1	-1.1	-1.1	-1.0	-0.7	0.2	-0.9	0.1	-0.8	-0.6	-0.9	-0.9	-1.4	-1.7	-1.6	-0.4	-0.9	-0.8	-0.9	-1.6
Delta 7500 Cycles	-1.4	-1.0	-0.8	-1.0	-0.2	0.2	-0.4	-1.7	-0.6	0.5	0.6	-0.6	-0.2	0.6	-1.1	0.1	-0.6	-1.0	-1.7	-1.7	-1.2	-1.0	-0.7	-0.9	-1.6
Delta 10000 Cycles	-1.4	-0.4	-0.4	-0.9	-0.2	0.1	-1.2	-0.9	-0.3	0.3	0.4	-1.4	-0.4	0.4	-1.3	-1.3	-1.1	-1.3	-2.0	-1.8	-1.3	-1.2	-0.8	-0.6	-1.8



Project Number: N/A		Tracking Code: 0207--0609	
Requested by: Matt Baumann		Date: 2/22/02	Product Rev: Current
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "-H" 50u" thick Au Plating is non-standard.)		Lot #: 02/25/02	Tech: Troy Cook Eng: John Tozier
Part description: 1mm Mini Card Guide			Qty to test: 16
Test Start: 02/25/02		Test Completed: 3/18/02	

Sample 5 Position																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Initial	14.9	14.2	14.2	14.2	15.0	14.7	14.6	15.0	13.7	15.6	14.7	14.5	13.9	14.3	14.2	16.0	15.6	15.6	14.5	14.1	14.6	14.8	14.2	14.7	16.2
Delta 500 Cycles	-0.7	-0.7	-0.7	-0.2	-1.5	-0.6	-1.0	-1.0	-0.4	-1.3	-0.4	0.1	0.0	-0.2	-0.3	-2.0	-1.5	-0.8	-0.9	-1.0	-0.2	-1.5	-0.9	-1.0	-1.6
Delta 1500 cycles	-0.5	0.2	-1.1	0.0	-1.3	-0.8	-0.4	-0.7	0.3	-1.1	-0.3	-0.1	0.1	0.7	-0.3	-0.3	-2.0	-1.9	-0.4	0.3	-0.5	-0.2	0.6	-0.3	-1.1
Delta 3000 Cycles	-1.0	0.3	-0.8	0.2	-1.3	-0.4	-0.2	-0.1	1.0	-1.2	0.3	1.0	0.8	0.5	0.9	-0.6	0.0	0.8	0.0	1.0	-0.1	-0.6	1.3	0.8	0.7
Delta 5000 Cycles	-1.2	-0.8	-0.9	-0.3	-1.6	0.4	1.3	0.7	0.2	-1.2	0.1	1.9	0.8	0.8	0.8	-0.2	-0.1	-0.6	1.8	0.8	-0.3	0.1	2.2	1.8	-0.9
Delta 7500 Cycles	8.3	-0.4	-0.2	1.5	-0.2	0.1	0.2	0.1	1.0	-0.4	0.6	0.4	0.2	1.6	1.4	-0.6	-1.0	-0.5	0.2	0.8	-0.9	-0.6	-0.2	-0.6	-0.2
Delta 10000 Cycles	0.0	-0.8	-0.7	-0.6	-1.8	-0.6	-1.3	-0.5	-0.6	-1.7	-0.5	-0.6	-0.2	-0.6	-0.9	-1.8	-1.4	-1.9	-0.8	0.1	-1.2	-0.1	-0.2	0.7	3.0
Sample 7 Position																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Initial	14.6	15.0	13.8	14.6	14.5	15.1	14.3	15.9	14.3	14.7	14.7	14.6	14.7	16.5	14.8	15.2	14.5	15.6	14.2	14.3	14.1	14.4	15.0	15.3	16.0
Delta 500 Cycles	-1.2	-2.0	-0.3	0.3	-1.1	-1.3	-0.5	-2.0	-0.7	-1.2	-1.0	-0.7	-0.9	-2.5	-0.7	-1.5	-1.1	-1.0	-0.9	-1.0	-1.2	-1.1	-2.2	-2.1	-0.8
Delta 1500 cycles	0.1	-1.4	-0.3	-0.9	-0.8	-1.4	-0.2	-0.7	-0.7	-0.7	-1.1	-1.0	0.0	-0.9	-1.1	-1.7	-1.2	-0.1	-0.8	-1.0	-0.8	-1.0	-1.7	0.6	-1.4
Delta 3000 Cycles	0.2	-1.1	0.5	-0.6	0.8	1.5	0.3	-0.7	0.0	1.2	0.0	0.5	-0.3	-1.7	-0.5	-0.5	-0.2	-0.5	0.5	0.0	-0.5	-0.3	-0.6	-1.4	-0.1
Delta 5000 Cycles	0.7	-1.1	0.0	0.0	-0.5	0.2	-0.3	-1.1	0.7	1.5	0.3	2.8	-0.3	-0.1	0.8	-1.3	-0.2	-1.0	-0.6	0.2	-0.4	-0.6	-1.7	-0.5	-0.4
Delta 7500 Cycles	1.1	-1.0	0.1	-0.4	0.3	-0.3	-0.3	-1.4	0.4	0.5	-0.7	-0.7	-1.1	-0.9	0.1	-1.3	-0.7	-0.5	-0.2	-0.3	-0.1	0.2	-1.7	-1.2	-0.6
Delta 10000 Cycles	2.2	-0.9	0.5	0.2	-0.3	-0.3	0.3	2.0	2.6	3.7	2.9	8.2	1.8	10.1	1.4	0.4	1.8	-0.6	20.3	-0.4	0.9	-0.2	-1.6	4.1	-1.6
Sample 8 Position																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Initial	15.3	14.7	14.6	15.4	15.0	16.7	15.0	17.0	15.3	15.5	15.9	15.5	15.1	15.9	15.1	15.7	15.5	15.9	15.4	15.8	15.4	15.6	14.1	15.0	15.9
Delta 500 Cycles	-0.9	-1.5	-1.4	-1.9	-1.4	-2.7	-1.4	-3.1	-1.5	-1.6	-1.8	-2.1	-1.6	-2.2	-1.5	-2.2	-1.8	-1.6	-1.5	-1.7	-1.2	-0.6	-0.7	-1.5	-0.4
Delta 1500 cycles	-1.4	-2.1	-1.4	0.0	-0.8	0.3	-1.2	-1.6	-1.9	-0.2	-2.2	-1.9	-1.5	-2.4	-1.6	-1.2	-1.8	-0.6	-1.8	-2.6	-0.2	-1.3	-0.8	-1.8	-0.9
Delta 3000 Cycles	-1.0	-1.3	-1.2	-1.2	-2.0	-2.9	-1.5	-1.0	-1.8	-0.9	-2.3	-1.3	-1.3	-1.9	-2.1	-2.0	-2.0	-2.3	-2.2	-2.8	-1.4	-0.8	-0.7	-1.4	-1.5
Delta 5000 Cycles	-1.6	-1.7	-1.5	-1.7	-1.5	-2.4	-0.9	-1.5	-1.6	-1.7	-1.9	-0.4	-0.7	-1.9	-1.4	-1.9	-2.2	0.2	-1.5	-2.0	-1.4	-2.1	-0.4	-1.7	-1.5
Delta 7500 Cycles	-1.5	-1.6	-1.3	-1.4	-1.2	-1.7	-1.0	-1.9	-1.2	-1.2	-1.7	2.4	-1.0	-1.4	-1.3	-0.5	-1.4	2.1	-0.5	-2.0	0.4	-1.4	-0.9	-1.0	-0.4
Delta 10000 Cycles	-0.8	-1.1	0.1	-1.4	-1.6	-2.5	-2.0	-1.9	-1.1	-1.0	-2.2	-1.1	-1.5	-1.3	-0.9	-0.7	-1.7	-0.3	-1.1	-1.5	-0.9	-1.1	0.0	0.0	-0.6



Project Number: N/A		Tracking Code: 0207--0609	
Requested by: Matt Baumann		Date: 2/22/02	Product Rev: Current
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "-H" 50u" thick Au Plating is non-standard.)		Lot #: 02/25/02	Tech: Troy Cook Eng: John Tozier
Part description: 1mm Mini Card Guide			Qty to test: 16
Test Start: 02/25/02	Test Completed: 3/18/02		

EQUIPMENT AND CALIBRATION SCHEDULES

Equipment #: 20

Description: Temperature/Humidity Chart Recorder

Manufacturer: Dickson

Model: THDX

Serial #: 9316255

Accuracy: Temp: +/- 1C; Humidity: +/-2% RH (0 - 60%) +/- 3% RH (61 - 95%).

... Last Cal: 6/15/01, Next Cal: 6/15/02

Equipment #: 26

Description: 6"X 6" Video Measuring Machine

Manufacturer: Optical Gauging Products

Model: Smartscope 200 CFOV

Serial #: SF2001956

Accuracy: See Manual

... Last Cal: 8/01, Next Cal: 8/02

Equipment #: 11

Description: Micro-Ohmeter

Manufacturer: Keithley

Model: 580

Serial #: 0772740

Accuracy: See Manual

... Last Cal: 6/14/01, Next Cal: 6/14/02

Equipment #: 13

Description: Multimeter /Data Acquisition System

Manufacturer: Keithley

Model: 2700

Serial #: 0791975

Accuracy: See Manual

... Last Cal: 6/14/01, Next Cal: 6/14/02



Project Number: N/A		Tracking Code: 0207--0609	
Requested by: Matt Baumann		Date: 2/22/02	Product Rev: Current
Part #: MB1-130-01-S-S-02-A1-N, MB1-130-01-H-S-02-A1-N*. (The "H" 50u" thick Au Plating is non-standard.)		Lot #: 02/25/02	Tech: Troy Cook Eng: John Tozier
Part description: 1mm Mini Card Guide			Qty to test: 16
Test Start: 02/25/02	Test Completed: 3/18/02		

Equipment #: 18

Description: Test Stand

Manufacturer: Chatillon

Model: TCD-1000

Serial #: 05 23 00 02

Accuracy: Speed Accuracy: +/-5% of max speed; Displacement: +/- .5% or +/- .005, whichever is greater.
... Last Cal: 6/15/01, Next Cal: 6/15/02

Equipment #: 2

Description: Chatillon Remote Load Gage

Manufacturer: Chatillon

Model: DFGRS-R-ND

Serial #: A38240

Accuracy: +/- 0.3% of Full Scale +/- 1 LSC
... Last Cal: 6/14/01, Next Cal: 6/14/02

Equipment #: 7

Description: Chatillon 1000 Lb Load Cell

Manufacturer: Chatillon

Model: Remote-1000

Serial #: E31399

Accuracy: +/- 0.3% of Full Scale +/- 1 LSC
... Last Cal: 6/14/01, Next Cal: 6/14/02