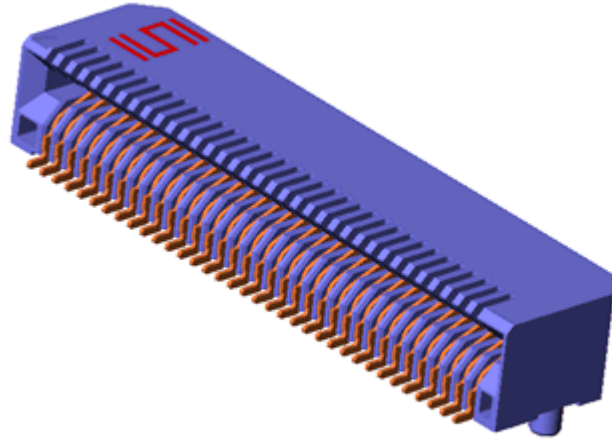




Project Number: NA		Tracking Code: TC0312--0104	
Requested by: Jan Hrouda		Date: 3/20/2003	Product Rev: A
Part #: MECT-150-01-M-D-RA1		Lot #: Sample	Tech: Troy Cook Eng: John Tozier
Part description: 0.8 mm [0.031"] Right Angled Edge Card Assembly			Qty to test: 50
Test Start: 02/25/2003	Test Completed: 3/31/2003		



**LLCR Durability and Gap Measurements (to 500 cycles) with Environmental Stresses  
Summary Report**

**PART DESCRIPTION**

**MECT-150-01-M-D-RA1**

## 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.

### SCOPE

To perform the following tests: LLCR Durability and Gap Measurements (to 500 cycles) with Environmental Stresses

### 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 traceability throughout the test sequences.
- 3) After soldering, the parts to be used for LLCR 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) Sample test boards are immersed into Branson 3510 cleaner containing Kyzen Ionox HC1 (or equivalent) with the following conditions:
    - i) Temperature: -----55° C +/- 5° C
    - ii) Frequency:-----40 KHz
    - iii) Immersion Time: -----5 to 10 Minutes
    - iv) Sample test boards are removed and placed into the Branson 3510 cleaner containing deionized water with the following conditions:
      - v) Temperature: -----55° C +/- 5° C
      - vi) Frequency:-----40 KHz
      - vii) Immersion Time: -----5 to 10 Minutes
      - viii) Sample test boards are removed and placed in a beaker positioned on a hot plate with a magnetic stirrer containing deionized water warmed to 55° C +/- 5° C for 1/2 to 1 minute
  - c) Upon removal, the sample test boards are rinsed for 1/2 to 1 minute in room temperature free flowing deionized water.
  - d) After the final rinse, the sample test boards are dried in an air-circulating oven for 10 to 15 minutes at 50° C +/- 5° C
  - e) Sample test boards are then allowed to set and recover to room ambient condition prior to testing.
- 4) Parts not intended for testing LLCR and DWV/IR are visually inspected and cleaned if necessary.
- 5) Any additional preparation will be noted in the individual test procedures.

**FLOWCHARTS**

<b>TEST</b>	<b>GROUP A</b>	<b>GROUP B</b>
<b>STEP</b>	<b>5 Boards</b>	<b>200 Points</b>
	<b>500 Cycles</b>	<b>500 Cycles</b>
<b>01</b>	Contact Gaps	LLCR-1
<b>02</b>	200 Cycles	Data Review
<b>03</b>	Contact Gaps	200 Cycles
<b>04</b>	Data Review	LLCR-2
<b>05</b>	300 Cycles	Data Review
<b>06</b>	Contact Gaps	300 Cycles
<b>07</b>	Data Review	LLCR-3
<b>08</b>	400 Cycles	Data Review
<b>09</b>	Contact Gaps	400 Cycles
<b>10</b>	Data Review	LLCR-4
<b>11</b>	500 Cycles	Data Review
<b>12</b>	Contact Gaps	500 Cycles
<b>13</b>	Data Review	LLCR-5
<b>14</b>	Thermal Aging (Mated)	Data Review
<b>15</b>	Contact Gaps	Thermal Age
<b>16</b>	Data Review	LLCR-6
<b>17</b>	Humidity (Mated)	Data Review
<b>18</b>	Contact Gaps	Cyclic Humidity
<b>19</b>		LLCR-7

**ATTRIBUTE DEFINITION**

Following is a brief, simplified description of attributes.

**THERMAL AGING:**

- 1) EIA-364-17, *Temperature Life with or without Electrical Load Test Procedure for Electrical Connectors*.
  - a) Test Condition 4 at 105° C.
  - b) Test Time Condition B for 250 hours.
- 2) Connectors are mated.

**CYCLIC HUMIDITY:**

- 1) Reference document: EIA-364-31, *Humidity Test Procedure for Electrical Connectors*.
  - a) Test Condition B, 240 Hours.
  - b) Method III, +25° C to + 65° C, 90% to 98% Relative Humidity excluding sub-cycles 7a and 7b.
- 2) Connectors are mated.

**CONTACT GAPS:**

- 1) Gaps between mating contacts 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.
- 3) The following guidelines are used to categorize the changes in LLCR as a result from stressing
  - a)  $\leq +5.0$  mOhms: ----- Stable
  - b)  $+5.1$  to  $+10.0$  mOhms:----- Minor
  - c)  $+10.1$  to  $+15.0$  mOhms: ----- Acceptable
  - d)  $+15.1$  to  $+50.0$  mOhms: ----- Marginal
  - e)  $+50.1$  to  $+2000$  mOhms: ----- Unstable
  - f)  $>+2000$  mOhms:----- Open Failure

**RESULTS****Contact Gaps**

- **Initial**
  - Min-----0.4323 mm
  - Max-----0.5147 mm
- **After 200 Cycles**
  - Min-----0.4920 mm
  - Max-----0.5618 mm
- **After 300 Cycles**
  - Min-----0.5061 mm
  - Max-----0.5714 mm
- **After 400 Cycles**
  - Min-----0.5119 mm
  - Max-----0.5814 mm
- **After 500 Cycles**
  - Min-----0.5104 mm
  - Max-----0.5818 mm
- **Thermal**
  - Min-----0.6523 mm
  - Max-----0.7075 mm
- **Humidity**
  - Min-----0.6620 mm
  - Max-----0.7141 mm

**LLCR Durability (200 LLCR test points)**

- **Initial**----- 15.1 mOhms Max
- **Durability, 200 Cycles**
  - <= +5.0 mOhms -----200 Points----- Stable
  - +5.1 to +10.0 mOhms -----0 Points----- Minor
  - +10.1 to +15.0 mOhms -----0 Points----- Acceptable
  - +15.1 to +50.0 mOhms -----0 Points----- Marginal
  - +50.1 to +2000 mOhms-----0 Points----- Unstable
  - >+2000 mOhms-----0 Points----- Open Failure
- **Durability, 300 Cycles**
  - <= +5.0 mOhms -----200 Points----- Stable
  - +5.1 to +10.0 mOhms -----0 Points----- Minor
  - +10.1 to +15.0 mOhms -----0 Points----- Acceptable
  - +15.1 to +50.0 mOhms -----0 Points----- Marginal
  - +50.1 to +2000 mOhms-----0 Points----- Unstable
  - >+2000 mOhms-----0 Points----- Open Failure
- **Durability, 400 Cycles**
  - <= +5.0 mOhms -----200 Points----- Stable
  - +5.1 to +10.0 mOhms -----0 Points----- Minor
  - +10.1 to +15.0 mOhms -----0 Points----- Acceptable
  - +15.1 to +50.0 mOhms -----0 Points----- Marginal
  - +50.1 to +2000 mOhms-----0 Points----- Unstable
  - >+2000 mOhms-----0 Points----- Open Failure
- **Durability, 500 Cycles**
  - <= +5.0 mOhms -----200 Points----- Stable
  - +5.1 to +10.0 mOhms -----0 Points----- Minor
  - +10.1 to +15.0 mOhms -----0 Points----- Acceptable
  - +15.1 to +50.0 mOhms -----0 Points----- Marginal
  - +50.1 to +2000 mOhms-----0 Points----- Unstable
  - >+2000 mOhms-----0 Points----- Open Failure

- **Thermal**

- $\leq +5.0$  mOhms ----- 200 Points ----- Stable
- +5.1 to +10.0 mOhms ----- 0 Points ----- Minor
- +10.1 to +15.0 mOhms ----- 0 Points ----- Acceptable
- +15.1 to +50.0 mOhms ----- 0 Points ----- Marginal
- +50.1 to +2000 mOhms ----- 0 Points ----- Unstable
- $>+2000$  mOhms ----- 0 Points ----- Open Failure
- 

- **Humidity**

- $\leq +5.0$  mOhms ----- 200 Points ----- Stable
- +5.1 to +10.0 mOhms ----- 0 Points ----- Minor
- +10.1 to +15.0 mOhms ----- 0 Points ----- Acceptable
- +15.1 to +50.0 mOhms ----- 0 Points ----- Marginal
- +50.1 to +2000 mOhms ----- 0 Points ----- Unstable
- $>+2000$  mOhms ----- 0 Points ----- Open Failure

## DATA SUMMARIES

## CONTACT GAPS:

Initial

## Measurements in mm

	B1	B2	B3	B4	B5
<i>Minimum</i>	0.4457	0.4323	0.4543	0.4527	0.4519
<i>Maximum</i>	0.5120	0.5147	0.5141	0.4998	0.5085
<i>Average</i>	0.4655	0.4572	0.4733	0.4732	0.4704
<i>St. Dev.</i>	0.0155	0.0157	0.0137	0.0123	0.0128
<i>Count</i>	50	50	50	50	50

200 Cycles

## Measurements in mm

	B1	B2	B3	B4	B5
<i>Minimum</i>	0.4927	0.4960	0.4920	0.5090	0.4995
<i>Maximum</i>	0.5522	0.5394	0.5548	0.5618	0.5420
<i>Average</i>	0.5115	0.5144	0.5164	0.5260	0.5148
<i>St. Dev.</i>	0.0126	0.0122	0.0125	0.0136	0.0096
<i>Count</i>	50	50	50	50	50

300 Cycles

## Measurements in mm

	B1	B2	B3	B4	B5
<i>Minimum</i>	0.5061	0.5083	0.5067	0.5243	0.5095
<i>Maximum</i>	0.5714	0.5537	0.5647	0.5712	0.5503
<i>Average</i>	0.5265	0.5283	0.5268	0.5398	0.5235
<i>St. Dev.</i>	0.0136	0.0126	0.0123	0.0119	0.0097
<i>Count</i>	50	50	50	50	50

400 Cycles

## Measurements in mm

	B1	B2	B3	B4	B5
<i>Minimum</i>	0.5126	0.5119	0.5159	0.5256	0.5120
<i>Maximum</i>	0.5814	0.5553	0.5754	0.5739	0.5548
<i>Average</i>	0.5316	0.5295	0.5330	0.5410	0.5266
<i>St. Dev.</i>	0.0139	0.0121	0.0141	0.0120	0.0099
<i>Count</i>	50	50	50	50	50

500 Cycles

## Measurements in mm

	B1	B2	B3	B4	B5
<i>Minimum</i>	0.5162	0.5116	0.5124	0.5236	0.5104
<i>Maximum</i>	0.5818	0.5724	0.5713	0.5701	0.5518
<i>Average</i>	0.5344	0.5332	0.5301	0.5388	0.5256
<i>St. Dev.</i>	0.0146	0.0155	0.0142	0.0116	0.0092
<i>Count</i>	50	50	50	50	50

## DATA SUMMARIES Continued

## CONTACT GAPS:

## Thermal

## Measurements in mm

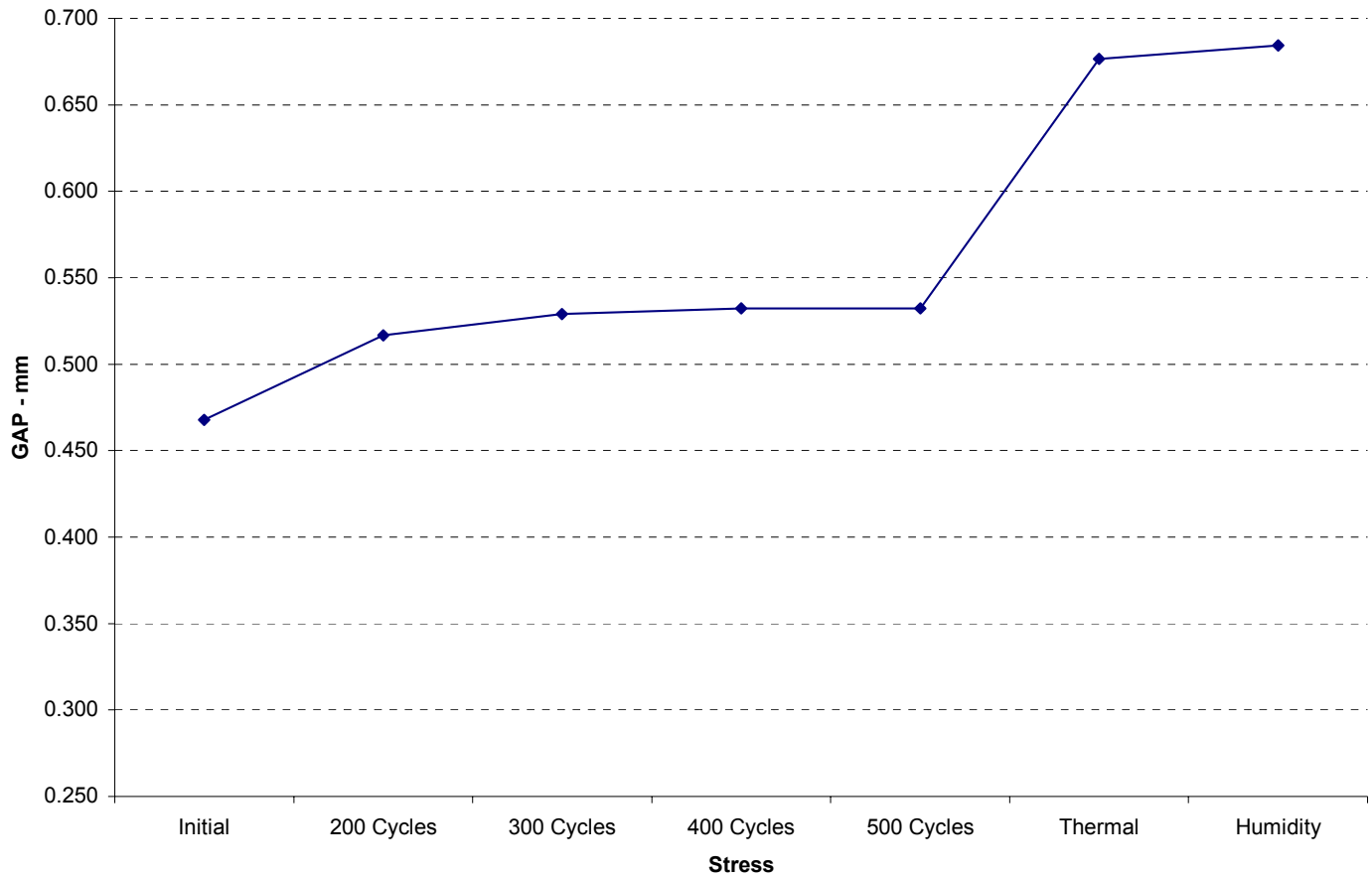
	B1	B2	B3	B4	B5
<i>Minimum</i>	0.6612	0.6676	0.6651	0.6741	0.6523
<i>Maximum</i>	0.7054	0.7075	0.7022	0.7032	0.6742
<i>Average</i>	0.6753	0.6797	0.6801	0.6843	0.6632
<i>St. Dev.</i>	0.0083	0.0093	0.0084	0.0070	0.0052
<i>Count</i>	50	50	50	50	50

## Humidity

## Measurements in mm

	B1	B2	B3	B4	B5
<i>Minimum</i>	0.6666	0.6735	0.6769	0.6837	0.6620
<i>Maximum</i>	0.7130	0.7141	0.7082	0.7115	0.6812
<i>Average</i>	0.6803	0.6881	0.6893	0.6934	0.6706
<i>St. Dev.</i>	0.0086	0.0093	0.0076	0.0066	0.0049
<i>Count</i>	50	50	50	50	50

MECT GAP Measurements



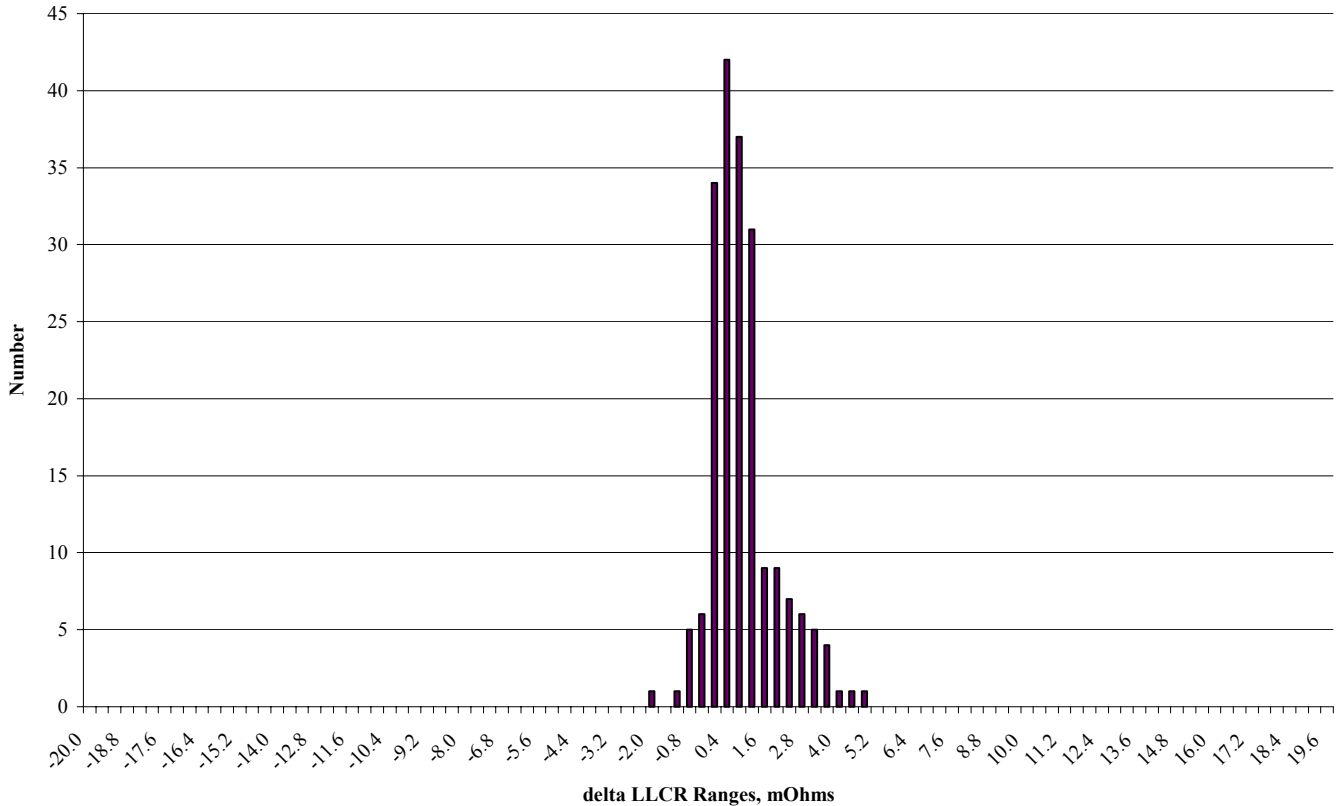
### DATA SUMMARIES Continued

**LLCR:**

- 1) A total of 200 points were measured.
- 2) EIA-364-23, *Low Level Contact Resistance Test Procedure for Electrical Connectors and Sockets*.
- 3) A computer program, *LLCR 221.exe*, ensures repeatability for data acquisition.
- 4) The following guidelines are used to categorize the changes in LLCR as a result from stressing.
  - a)  $\leq +5.0$  mOhms: ----- Stable
  - b)  $+5.1$  to  $+10.0$  mOhms:----- Minor
  - c)  $+10.1$  to  $+15.0$  mOhms: ----- Acceptable
  - d)  $+15.1$  to  $+50.0$  mOhms: ----- Marginal
  - e)  $+50.1$  to  $+2000$  mOhms ----- Unstable
  - f)  $>+2000$  mOhms:----- Open Failure

Date	Mar. 03 2003	Mar. 04 2003	Mar. 04 2003	Mar. 04 2003	Mar. 04 2003	Mar. 17 2003	Mar. 31 2003
Room Temp C	21	23	22	22	21	20	20
RH	27%	23%	24%	26%	28%	48%	26%
Name	Troy Cook	Troy Cook	Troy Cook	Troy Cook	Troy Cook	Troy Cook	Troy Cook
mOhm values	<b>Actual</b>	<b>Delta</b>	<b>Delta</b>	<b>Delta</b>	<b>Delta</b>	<b>Delta</b>	<b>Delta</b>
	<b>Initial</b>	<b>200</b>	<b>300</b>	<b>400</b>	<b>500</b>	<b>Thermal</b>	<b>Humidity</b>
Average	12.4	-0.3	-0.3	-0.3	-0.3	0.3	0.7
St. Dev.	1.4	0.5	0.5	0.5	0.5	0.7	1.1
Min	10.5	-3.5	-3.3	-3.4	-3.5	-2.4	-2.3
Max	15.1	0.6	0.7	0.9	0.5	2.5	4.8
Count	200	200	200	200	200	200	200

Count, Humidity



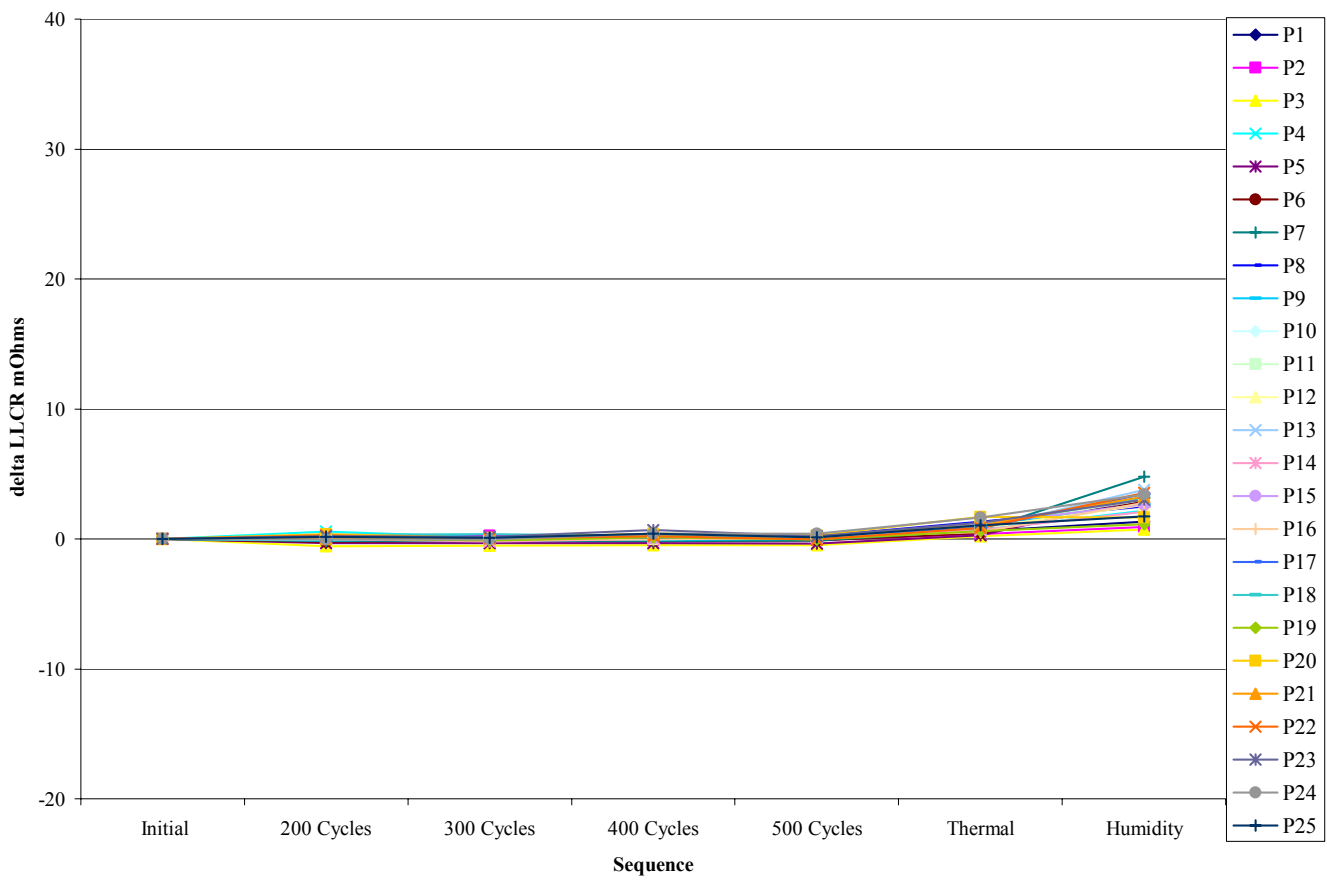






### DATA SUMMARIES Continued

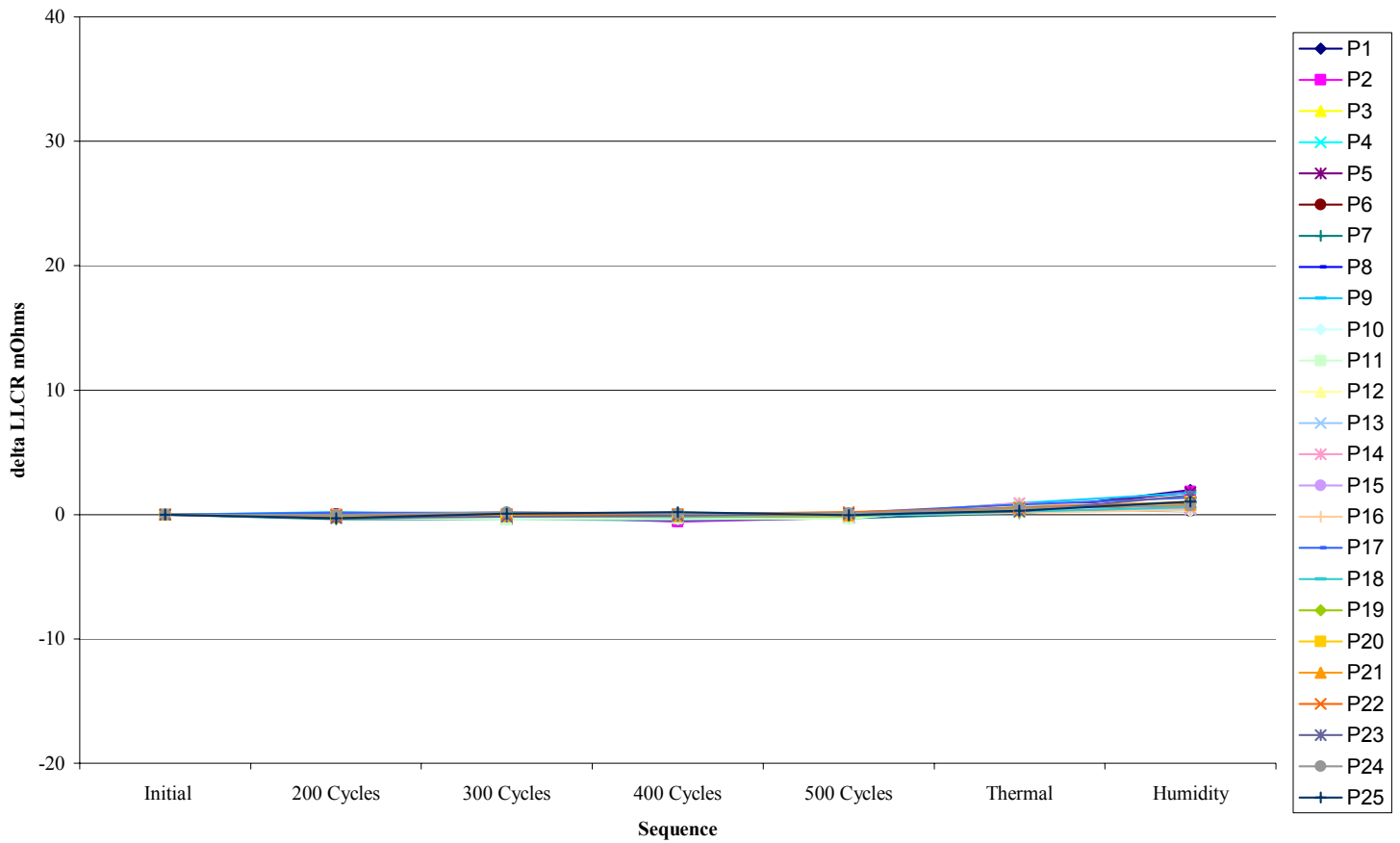
#### Board #4





### DATA SUMMARIES Continued

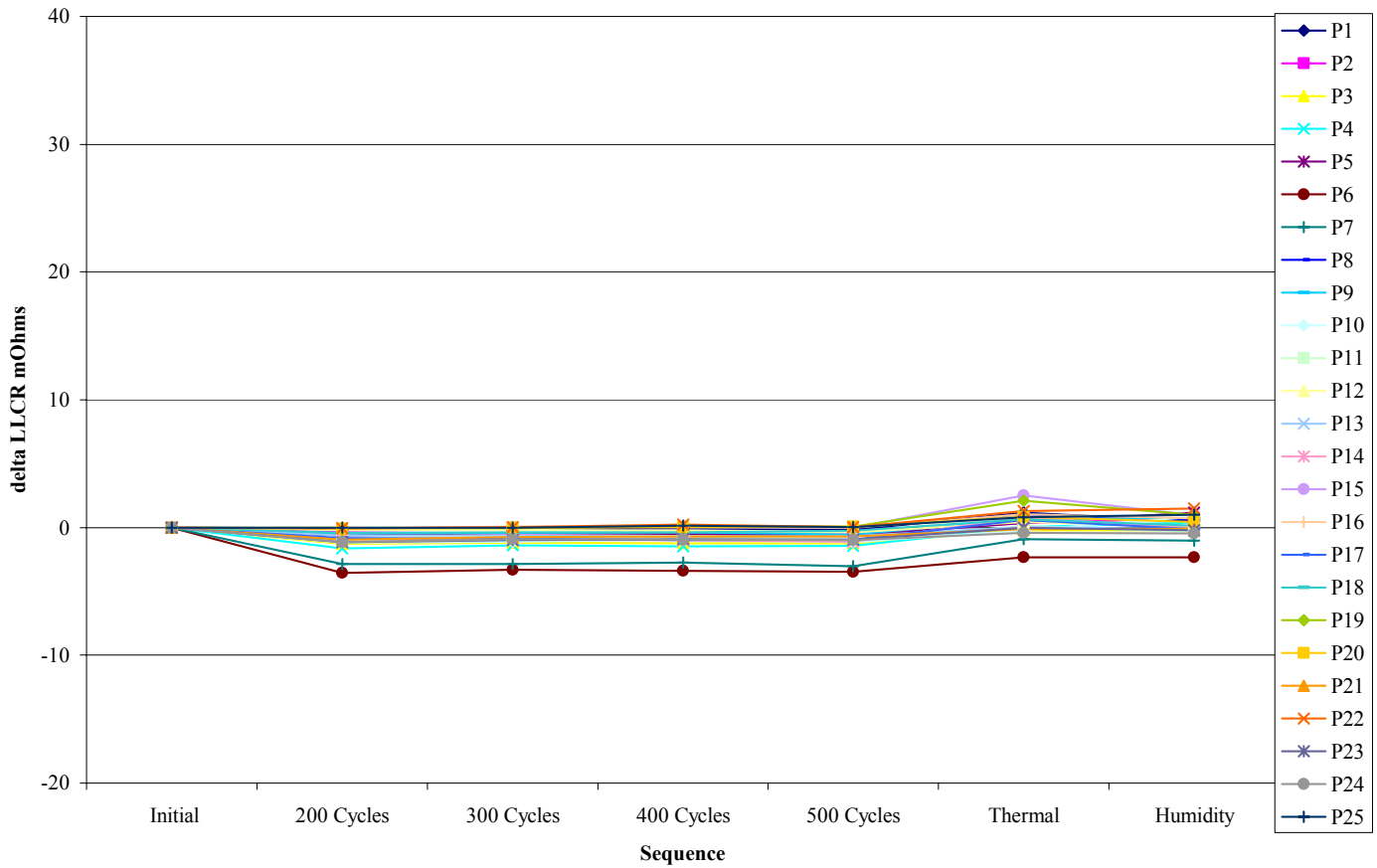
#### Board #6





### DATA SUMMARIES Continued

#### Board #8



Tracking Code: TC0312--0104

Part #: MECT-150-01-M-D-RA1

Part description: : 0.8 mm [0.031"] Right Angled Edge Card Assembly

**DATA****CONTACT GAPS**

**Test Date:** 2/25/2003  
**Operator:** GL  
**Temperature (C):** 23  
**Humidity (RH):** 15%  
**Equipment ID:** OGP-01

**Used In:** MECT

Initial  
**Measurements in mm**

Sample#	B1	B2	B3	B4	B5
1	0.4853	0.4742	0.5051	0.4975	0.4835
2	0.4851	0.4764	0.5045	0.4998	0.5020
3	0.4772	0.4705	0.4983	0.4890	0.4870
4	0.4718	0.4724	0.5022	0.4988	0.5085
5	0.4687	0.4655	0.5141	0.4865	0.4844
6	0.4711	0.4730	0.4811	0.4796	0.4823
7	0.4993	0.4470	0.4707	0.4764	0.4773
8	0.4538	0.4473	0.4647	0.4649	0.4691
9	0.4482	0.4419	0.4712	0.4668	0.4658
10	0.4604	0.4515	0.4668	0.4732	0.4670
11	0.4487	0.4486	0.4789	0.4864	0.4712
12	0.4548	0.4535	0.4605	0.4781	0.4615
13	0.4457	0.4650	0.4543	0.4629	0.4519
14	0.4495	0.4437	0.4642	0.4615	0.4608
15	0.4880	0.4363	0.4616	0.4680	0.4595
16	0.4590	0.4569	0.4733	0.4625	0.4697
17	0.4707	0.4643	0.4649	0.4675	0.4556
18	0.4587	0.4414	0.4863	0.4880	0.4913
19	0.4608	0.4529	0.4606	0.4681	0.4551
20	0.4670	0.4588	0.4736	0.4914	0.4635
21	0.4724	0.4818	0.4792	0.4661	0.4715
22	0.4796	0.4894	0.4679	0.4782	0.4657
23	0.4884	0.4769	0.4723	0.4725	0.4728
24	0.4814	0.4744	0.4871	0.4784	0.4805
25	0.4692	0.4672	0.4876	0.4793	0.4742
26	0.4683	0.4744	0.4899	0.4991	0.4929
27	0.4547	0.4616	0.4699	0.4634	0.4702
28	0.4461	0.4464	0.4652	0.4623	0.4523
29	0.4581	0.4541	0.4620	0.4704	0.4676
30	0.4857	0.4437	0.4680	0.4619	0.4646
31	0.4574	0.4543	0.4676	0.4732	0.4793
32	0.4496	0.4462	0.4556	0.4616	0.4572
33	0.4522	0.4460	0.4734	0.4763	0.4746
34	0.4492	0.5147	0.4682	0.4587	0.4573
35	0.4473	0.4442	0.4590	0.4527	0.4602
36	0.4505	0.4408	0.4715	0.4674	0.4672
37	0.4658	0.4381	0.4606	0.4620	0.4585
38	0.4934	0.4323	0.4636	0.4628	0.4586
39	0.4609	0.4498	0.4613	0.4573	0.4628
40	0.5120	0.4461	0.4740	0.4946	0.4605

Tracking Code: TC0312--0104

Part #: MECT-150-01-M-D-RA1

Part description: : 0.8 mm [0.031"] Right Angled Edge Card Assembly

41	0.4506	0.4446	0.4865	0.4807	0.4820
42	0.4612	0.4666	0.4634	0.4590	0.4667
43	0.4499	0.4437	0.4594	0.4581	0.4588
44	0.4462	0.4420	0.4677	0.4653	0.4669
45	0.4615	0.4468	0.4624	0.4695	0.4659
46	0.4618	0.4578	0.4680	0.4673	0.4527
47	0.4594	0.4524	0.4647	0.4646	0.4708
48	0.4681	0.4562	0.4715	0.4716	0.4729
49	0.4749	0.4637	0.4786	0.4786	0.4902
50	0.4764	0.4609	0.4798	0.4817	0.4768

Test Date: 2/28/2003

Operator: GL

Temperature (C): 24

Humidity (RH): 23%

Equipment ID: OGP-01

Used In: MECT

200 Cycles

## Measurements in mm

Sample#	B1	B2	B3	B4	B5
1	0.5379	0.5335	0.5548	0.5618	0.5328
2	0.5340	0.5303	0.5506	0.5557	0.5420
3	0.5291	0.5255	0.5394	0.5431	0.5252
4	0.5227	0.5246	0.5381	0.5401	0.5325
5	0.5161	0.5168	0.5374	0.5334	0.5254
6	0.5143	0.5157	0.5218	0.5291	0.5219
7	0.5227	0.5047	0.5132	0.5261	0.5173
8	0.5040	0.5044	0.5278	0.5195	0.5125
9	0.4995	0.5037	0.5118	0.5210	0.5079
10	0.5067	0.5045	0.5106	0.5200	0.5084
11	0.4963	0.5022	0.5128	0.5196	0.5059
12	0.4990	0.5072	0.5037	0.5160	0.5060
13	0.4941	0.5047	0.5018	0.5113	0.4995
14	0.4969	0.5048	0.5078	0.5127	0.5060
15	0.5107	0.4991	0.5094	0.5184	0.5082
16	0.5037	0.5113	0.5154	0.5137	0.5164
17	0.5029	0.5159	0.5084	0.5169	0.5042
18	0.5028	0.5010	0.5167	0.5165	0.5190
19	0.5037	0.5064	0.5075	0.5178	0.5064
20	0.5093	0.5153	0.5123	0.5249	0.5129
21	0.5180	0.5327	0.5199	0.5237	0.5202
22	0.5151	0.5360	0.5154	0.5411	0.5185
23	0.5522	0.5379	0.5279	0.5587	0.5270
24	0.5402	0.5252	0.5291	0.5482	0.5258
25	0.5265	0.5211	0.5250	0.5415	0.5215
26	0.5195	0.5207	0.5243	0.5435	0.5218
27	0.5125	0.5204	0.5135	0.5274	0.5178
28	0.5060	0.5074	0.5118	0.5275	0.5037
29	0.5113	0.5119	0.5097	0.5283	0.5160
30	0.5167	0.5064	0.5105	0.5095	0.5124
31	0.5058	0.5094	0.4920	0.5223	0.5185
32	0.5069	0.5061	0.5032	0.5156	0.5033
33	0.5087	0.5032	0.5107	0.5196	0.5095
34	0.5057	0.5377	0.5121	0.5154	0.5074

Tracking Code: TC0312--0104

Part #: MECT-150-01-M-D-RA1

Part description: : 0.8 mm [0.031"] Right Angled Edge Card Assembly

35	0.5051	0.5055	0.5088	0.5110	0.5064
36	0.5029	0.5050	0.5137	0.5183	0.5134
37	0.5085	0.5012	0.5078	0.5161	0.5067
38	0.5129	0.4960	0.5081	0.5090	0.5050
39	0.5086	0.5068	0.5049	0.5093	0.5065
40	0.5284	0.5056	0.5075	0.5182	0.5051
41	0.5032	0.5048	0.5236	0.5277	0.5225
42	0.5049	0.5135	0.5072	0.5128	0.5110
43	0.4978	0.5048	0.5044	0.5125	0.5061
44	0.4927	0.5054	0.5111	0.5201	0.5124
45	0.4959	0.5121	0.5079	0.5251	0.5107
46	0.5027	0.5215	0.5141	0.5253	0.5049
47	0.5059	0.5234	0.5130	0.5272	0.5140
48	0.5138	0.5308	0.5198	0.5314	0.5175
49	0.5163	0.5394	0.5299	0.5421	0.5348
50	0.5230	0.5389	0.5340	0.5518	0.5279

Test Date:	3/3/2003
Operator:	GL
Temperature (C):	24
Humidity (RH):	21%
Equipment ID:	OGP-01

Used In:	MECT
----------	------

300 Cycles

## Measurements in mm

Sample#	B1	B2	B3	B4	B5
1	0.5510	0.5537	0.5647	0.5712	0.5426
2	0.5461	0.5488	0.5588	0.5657	0.5503
3	0.5429	0.5423	0.5477	0.5527	0.5355
4	0.5329	0.5418	0.5451	0.5503	0.5416
5	0.5285	0.5308	0.5464	0.5434	0.5338
6	0.5282	0.5281	0.5304	0.5375	0.5312
7	0.5281	0.5213	0.5227	0.5380	0.5267
8	0.5151	0.5210	0.5166	0.5303	0.5213
9	0.5093	0.5198	0.5197	0.5318	0.5189
10	0.5161	0.5233	0.5160	0.5318	0.5164
11	0.5105	0.5200	0.5199	0.5311	0.5143
12	0.5066	0.5247	0.5094	0.5282	0.5162
13	0.5061	0.5209	0.5067	0.5243	0.5095
14	0.5087	0.5196	0.5111	0.5260	0.5132
15	0.5236	0.5149	0.5152	0.5307	0.5158
16	0.5191	0.5272	0.5246	0.5273	0.5229
17	0.5233	0.5318	0.5174	0.5294	0.5128
18	0.5143	0.5170	0.5251	0.5347	0.5270
19	0.5072	0.5217	0.5187	0.5337	0.5143
20	0.5252	0.5288	0.5251	0.5379	0.5229
21	0.5295	0.5467	0.5336	0.5388	0.5287
22	0.5336	0.5509	0.5289	0.5539	0.5295
23	0.5714	0.5530	0.5365	0.5698	0.5352
24	0.5573	0.5402	0.5387	0.5580	0.5352
25	0.5435	0.5343	0.5374	0.5529	0.5276
26	0.5379	0.5339	0.5351	0.5549	0.5298
27	0.5294	0.5333	0.5255	0.5408	0.5260
28	0.5215	0.5189	0.5219	0.5402	0.5125

Tracking Code: TC0312--0104

Part #: MECT-150-01-M-D-RA1

Part description: : 0.8 mm [0.031"] Right Angled Edge Card Assembly

29	0.5263	0.5232	0.5201	0.5430	0.5254
30	0.5309	0.5171	0.5211	0.5352	0.5228
31	0.5234	0.5205	0.5222	0.5409	0.5267
32	0.5205	0.5187	0.5140	0.5334	0.5135
33	0.5232	0.5139	0.5207	0.5377	0.5179
34	0.5196	0.5506	0.5211	0.5335	0.5177
35	0.5191	0.5182	0.5201	0.5289	0.5187
36	0.5186	0.5187	0.5256	0.5369	0.5224
37	0.5244	0.5122	0.5189	0.5328	0.5152
38	0.5254	0.5083	0.5185	0.5283	0.5117
39	0.5202	0.5189	0.5178	0.5256	0.5142
40	0.5393	0.5163	0.5163	0.5320	0.5131
41	0.5174	0.5148	0.5372	0.5420	0.5300
42	0.5274	0.5236	0.5200	0.5280	0.5177
43	0.5134	0.5174	0.5191	0.5284	0.5133
44	0.5098	0.5184	0.5267	0.5332	0.5192
45	0.5188	0.5243	0.5239	0.5389	0.5187
46	0.5241	0.5330	0.5271	0.5391	0.5122
47	0.5300	0.5339	0.5270	0.5394	0.5241
48	0.5376	0.5409	0.5325	0.5458	0.5272
49	0.5421	0.5500	0.5445	0.5555	0.5442
50	0.5463	0.5516	0.5482	0.5649	0.5372

Test Date: 3/4/2003

Operator: GL

Temperature (C): 23

Humidity (RH): 24%

Equipment ID: OGP-01

Used In: MECT

400 Cycles

## Measurements in mm

Sample#	B1	B2	B3	B4	B5
1	0.5558	0.5553	0.5754	0.5739	0.5492
2	0.5533	0.5504	0.5684	0.5689	0.5548
3	0.5496	0.5401	0.5595	0.5498	0.5381
4	0.5409	0.5429	0.5543	0.5523	0.5456
5	0.5338	0.5341	0.5516	0.5449	0.5363
6	0.5343	0.5285	0.5384	0.5443	0.5343
7	0.5387	0.5226	0.5294	0.5394	0.5299
8	0.5215	0.5214	0.5172	0.5306	0.5242
9	0.5166	0.5214	0.5255	0.5326	0.5206
10	0.5260	0.5200	0.5232	0.5287	0.5203
11	0.5126	0.5180	0.5245	0.5297	0.5150
12	0.5197	0.5210	0.5160	0.5263	0.5155
13	0.5141	0.5224	0.5159	0.5256	0.5120
14	0.5163	0.5202	0.5200	0.5264	0.5173
15	0.5295	0.5140	0.5238	0.5317	0.5195
16	0.5251	0.5295	0.5291	0.5273	0.5266
17	0.5270	0.5335	0.5257	0.5281	0.5155
18	0.5268	0.5181	0.5338	0.5350	0.5287
19	0.5284	0.5217	0.5263	0.5367	0.5170
20	0.5317	0.5303	0.5346	0.5419	0.5249
21	0.5390	0.5466	0.5438	0.5401	0.5298
22	0.5438	0.5522	0.5401	0.5543	0.5287

Tracking Code: TC0312--0104

Part #: MECT-150-01-M-D-RA1

Part description: : 0.8 mm [0.031"] Right Angled Edge Card Assembly

23	0.5814	0.5543	0.5556	0.5697	0.5372
24	0.5662	0.5427	0.5542	0.5584	0.5374
25	0.5501	0.5369	0.5463	0.5517	0.5298
26	0.5417	0.5356	0.5461	0.5546	0.5321
27	0.5329	0.5341	0.5333	0.5414	0.5283
28	0.5243	0.5224	0.5283	0.5416	0.5145
29	0.5285	0.5264	0.5227	0.5445	0.5279
30	0.5323	0.5216	0.5232	0.5360	0.5252
31	0.5225	0.5248	0.5249	0.5414	0.5275
32	0.5233	0.5201	0.5167	0.5348	0.5156
33	0.5256	0.5167	0.5238	0.5395	0.5200
34	0.5211	0.5519	0.5243	0.5351	0.5201
35	0.5203	0.5180	0.5220	0.5285	0.5221
36	0.5199	0.5200	0.5284	0.5388	0.5258
37	0.5268	0.5157	0.5205	0.5346	0.5189
38	0.5261	0.5119	0.5212	0.5314	0.5165
39	0.5233	0.5185	0.5191	0.5277	0.5193
40	0.5425	0.5184	0.5219	0.5330	0.5171
41	0.5192	0.5168	0.5398	0.5454	0.5348
42	0.5307	0.5290	0.5236	0.5315	0.5232
43	0.5163	0.5201	0.5222	0.5298	0.5177
44	0.5131	0.5214	0.5293	0.5369	0.5251
45	0.5211	0.5277	0.5266	0.5419	0.5244
46	0.5258	0.5340	0.5319	0.5418	0.5175
47	0.5314	0.5372	0.5323	0.5421	0.5283
48	0.5379	0.5422	0.5371	0.5453	0.5301
49	0.5408	0.5471	0.5467	0.5577	0.5476
50	0.5488	0.5463	0.5509	0.5649	0.5424

Test Date: 3/4/2003

Operator: GL

Temperature (C): 23

Humidity (RH): 24%

Equipment ID: OGP-01

Used In: MECT

500 Cycles

## Measurements in mm

Sample#	B1	B2	B3	B4	B5
1	0.5558	0.5621	0.5713	0.5701	0.5429
2	0.5532	0.5567	0.5661	0.5666	0.5518
3	0.5491	0.5501	0.5547	0.5492	0.5375
4	0.5415	0.5491	0.5532	0.5509	0.5427
5	0.5355	0.5399	0.5511	0.5439	0.5366
6	0.5349	0.5332	0.5359	0.5383	0.5325
7	0.5393	0.5250	0.5260	0.5364	0.5274
8	0.5230	0.5250	0.5183	0.5297	0.5225
9	0.5188	0.5221	0.5217	0.5299	0.5200
10	0.5260	0.5255	0.5202	0.5305	0.5198
11	0.5162	0.5221	0.5256	0.5306	0.5122
12	0.5212	0.5271	0.5133	0.5261	0.5177
13	0.5165	0.5246	0.5134	0.5236	0.5104
14	0.5177	0.5230	0.5189	0.5253	0.5174
15	0.5318	0.5181	0.5178	0.5301	0.5210

Tracking Code: TC0312--0104

Part #: MECT-150-01-M-D-RA1

Part description: : 0.8 mm [0.031"] Right Angled Edge Card Assembly

16	0.5253	0.5318	0.5251	0.5244	0.5259
17	0.5285	0.5357	0.5185	0.5304	0.5133
18	0.5285	0.5242	0.5299	0.5343	0.5292
19	0.5307	0.5303	0.5214	0.5348	0.5169
20	0.5368	0.5402	0.5301	0.5385	0.5257
21	0.5438	0.5617	0.5384	0.5360	0.5327
22	0.5453	0.5724	0.5362	0.5530	0.5294
23	0.5818	0.5716	0.5530	0.5677	0.5358
24	0.5665	0.5557	0.5514	0.5561	0.5358
25	0.5511	0.5445	0.5434	0.5506	0.5311
26	0.5443	0.5371	0.5439	0.5533	0.5319
27	0.5341	0.5359	0.5294	0.5412	0.5283
28	0.5239	0.5218	0.5245	0.5393	0.5124
29	0.5317	0.5272	0.5217	0.5423	0.5262
30	0.5340	0.5189	0.5203	0.5342	0.5234
31	0.5253	0.5233	0.5188	0.5395	0.5273
32	0.5237	0.5201	0.5124	0.5321	0.5150
33	0.5269	0.5172	0.5222	0.5368	0.5199
34	0.5231	0.5517	0.5235	0.5304	0.5196
35	0.5227	0.5204	0.5188	0.5252	0.5193
36	0.5216	0.5198	0.5257	0.5347	0.5241
37	0.5289	0.5154	0.5196	0.5318	0.5182
38	0.5288	0.5116	0.5196	0.5283	0.5162
39	0.5249	0.5199	0.5179	0.5253	0.5189
40	0.5429	0.5173	0.5191	0.5341	0.5177
41	0.5213	0.5187	0.5370	0.5440	0.5330
42	0.5328	0.5273	0.5189	0.5292	0.5222
43	0.5193	0.5197	0.5181	0.5291	0.5182
44	0.5177	0.5204	0.5254	0.5343	0.5237
45	0.5254	0.5262	0.5220	0.5393	0.5223
46	0.5323	0.5349	0.5296	0.5377	0.5170
47	0.5393	0.5369	0.5288	0.5393	0.5265
48	0.5494	0.5433	0.5359	0.5403	0.5289
49	0.5562	0.5526	0.5463	0.5525	0.5448
50	0.5691	0.5529	0.5488	0.5610	0.5359

Test Date: 3/17/2003

Operator: GL

Temperature (C): 23

Humidity (RH): 32%

Equipment ID: OGP-01

Used In: MECT

## Thermal

## Measurements in mm

Sample#	B1	B2	B3	B4	B5
1	0.6786	0.6892	0.7022	0.6933	0.6707
2	0.6832	0.6863	0.6987	0.6919	0.6742
3	0.6785	0.6847	0.6916	0.6830	0.6639
4	0.6761	0.6877	0.6919	0.6833	0.6695
5	0.6739	0.6835	0.6922	0.6819	0.6676
6	0.6737	0.6725	0.6841	0.6818	0.6657
7	0.6756	0.6738	0.6799	0.6809	0.6621
8	0.6658	0.6735	0.6738	0.6756	0.6581
9	0.6649	0.6728	0.6778	0.6782	0.6585

Tracking Code: TC0312--0104

Part #: MECT-150-01-M-D-RA1

Part description: : 0.8 mm [0.031"] Right Angled Edge Card Assembly

10	0.6736	0.6752	0.6791	0.6785	0.6580
11	0.6638	0.6733	0.6805	0.6781	0.6523
12	0.6667	0.6790	0.6761	0.6777	0.6581
13	0.6656	0.6735	0.6751	0.6753	0.6523
14	0.6667	0.6747	0.6793	0.6741	0.6588
15	0.6746	0.6735	0.6812	0.6820	0.6619
16	0.6739	0.6826	0.6850	0.6763	0.6640
17	0.6740	0.6832	0.6792	0.6815	0.6551
18	0.6743	0.6736	0.6848	0.6828	0.6647
19	0.6772	0.6784	0.6803	0.6846	0.6574
20	0.6784	0.6846	0.6807	0.6852	0.6611
21	0.6820	0.6997	0.6875	0.6854	0.6653
22	0.6815	0.7075	0.6851	0.6963	0.6641
23	0.7054	0.7048	0.6926	0.7032	0.6704
24	0.6966	0.6963	0.6953	0.6980	0.6721
25	0.6847	0.6908	0.6917	0.6921	0.6685
26	0.6826	0.6868	0.6904	0.6965	0.6691
27	0.6769	0.6858	0.6806	0.6894	0.6690
28	0.6731	0.6770	0.6794	0.6886	0.6570
29	0.6760	0.6798	0.6779	0.6939	0.6683
30	0.6764	0.6766	0.6775	0.6879	0.6642
31	0.6752	0.6771	0.6780	0.6919	0.6673
32	0.6732	0.6769	0.6716	0.6884	0.6598
33	0.6749	0.6734	0.6758	0.6906	0.6631
34	0.6741	0.6963	0.6803	0.6875	0.6630
35	0.6717	0.6780	0.6775	0.6809	0.6616
36	0.6693	0.6748	0.6788	0.6881	0.6656
37	0.6711	0.6718	0.6697	0.6815	0.6635
38	0.6734	0.6684	0.6720	0.6765	0.6600
39	0.6724	0.6732	0.6695	0.6758	0.6591
40	0.6801	0.6682	0.6681	0.6773	0.6582
41	0.6612	0.6693	0.6805	0.6855	0.6688
42	0.6753	0.6760	0.6658	0.6753	0.6617
43	0.6615	0.6688	0.6672	0.6753	0.6583
44	0.6623	0.6695	0.6724	0.6792	0.6630
45	0.6680	0.6676	0.6651	0.6823	0.6613
46	0.6730	0.6754	0.6717	0.6826	0.6567
47	0.6749	0.6763	0.6741	0.6815	0.6631
48	0.6807	0.6788	0.6750	0.6784	0.6601
49	0.6847	0.6818	0.6751	0.6866	0.6729
50	0.6922	0.6827	0.6839	0.6943	0.6692

Test Date: 3/31/2003

Operator: GL

Temperature (C): 24

Humidity (RH): 22%

Equipment ID: OGP-01

Used In: MECT

Humidity  
Measurements in mm

Sample#	B1	B2	B3	B4	B5
1	0.6849	0.6967	0.7082	0.7009	0.6758
2	0.6887	0.6971	0.7052	0.6981	0.6812
3	0.6867	0.6946	0.6998	0.6898	0.6728

Tracking Code: TC0312--0104

Part #: MECT-150-01-M-D-RA1

Part description: : 0.8 mm [0.031"] Right Angled Edge Card Assembly

4	0.6840	0.6977	0.7011	0.6934	0.6778
5	0.6801	0.6924	0.6978	0.6910	0.6764
6	0.6808	0.6880	0.6937	0.6918	0.6747
7	0.6806	0.6861	0.6883	0.6912	0.6724
8	0.6730	0.6875	0.6825	0.6876	0.6670
9	0.6694	0.6850	0.6874	0.6904	0.6677
10	0.6802	0.6868	0.6879	0.6910	0.6674
11	0.6708	0.6771	0.6880	0.6887	0.6643
12	0.6721	0.6874	0.6846	0.6870	0.6692
13	0.6713	0.6849	0.6828	0.6837	0.6620
14	0.6729	0.6824	0.6857	0.6843	0.6671
15	0.6805	0.6821	0.6916	0.6918	0.6696
16	0.6816	0.6911	0.6954	0.6864	0.6726
17	0.6820	0.6934	0.6895	0.6901	0.6628
18	0.6793	0.6825	0.6965	0.6912	0.6722
19	0.6825	0.6886	0.6904	0.6937	0.6654
20	0.6831	0.6937	0.6900	0.6939	0.6684
21	0.6882	0.7066	0.6985	0.6931	0.6727
22	0.6879	0.7141	0.6926	0.7031	0.6716
23	0.7130	0.7139	0.7006	0.7115	0.6770
24	0.7035	0.7025	0.7020	0.7062	0.6804
25	0.6931	0.6950	0.6978	0.7049	0.6760
26	0.6880	0.6951	0.6989	0.7061	0.6758
27	0.6832	0.6934	0.6908	0.6990	0.6761
28	0.6773	0.6855	0.6875	0.6989	0.6650
29	0.6832	0.6883	0.6868	0.7033	0.6770
30	0.6833	0.6867	0.6872	0.6983	0.6729
31	0.6803	0.6874	0.6896	0.6998	0.6759
32	0.6772	0.6849	0.6826	0.6966	0.6667
33	0.6795	0.6830	0.6833	0.6994	0.6700
34	0.6756	0.7032	0.6886	0.6951	0.6703
35	0.6761	0.6829	0.6825	0.6888	0.6688
36	0.6690	0.6794	0.6892	0.6956	0.6730
37	0.6766	0.6793	0.6834	0.6913	0.6686
38	0.6752	0.6735	0.6812	0.6879	0.6676
39	0.6721	0.6766	0.6775	0.6837	0.6658
40	0.6825	0.6775	0.6779	0.6843	0.6642
41	0.6688	0.6767	0.6918	0.6928	0.6741
42	0.6794	0.6803	0.6790	0.6839	0.6671
43	0.6666	0.6739	0.6778	0.6850	0.6649
44	0.6666	0.6758	0.6825	0.6890	0.6690
45	0.6717	0.6772	0.6769	0.6912	0.6679
46	0.6762	0.6835	0.6850	0.6904	0.6623
47	0.6789	0.6833	0.6824	0.6886	0.6688
48	0.6839	0.6869	0.6831	0.6893	0.6662
49	0.6854	0.6922	0.6880	0.6950	0.6787
50	0.6893	0.6905	0.6924	0.7014	0.6706

**DATA Continued**

Date	Mar. 03 2003	Mar. 04 2003	Mar. 04 2003	Mar. 04 2003	Mar. 04 2003	Mar. 17 2003	Mar. 31 2003
Room Temp C	21	23	22	22	21	20	20
RH	27%	23%	24%	26%	28%	48%	26%
Name	Troy Cook	Troy Cook	Troy Cook	Troy Cook	Troy Cook	Troy Cook	Troy Cook

mOhm values		Actual	Delta	Delta	Delta	Delta	Delta	Delta
Board	Position	Initial	200 Cycles	300 Cycles	400 Cycles	500 Cycles	Thermal	Humidity
1	P1	14.3	-1.5	-1.3	-0.5	-1.3	-1.3	-1.0
1	P2	13.6	-0.7	-0.5	0.3	-0.6	-0.4	-0.3
1	P3	13.1	-0.2	0.0	0.0	-0.1	0.0	0.1
1	P4	14.3	-0.9	-0.9	-0.9	-1.2	-1.0	-1.2
1	P5	13.7	-0.6	-0.8	0.6	-0.4	-0.6	0.0
1	P6	13.2	-0.3	-0.1	0.3	0.1	0.1	0.0
1	P7	14.0	-1.0	-0.9	-0.5	-0.8	-0.6	-0.4
1	P8	14.5	-1.4	-1.2	-1.2	-1.1	-0.7	-0.9
1	P9	13.5	-0.4	-0.2	0.4	-0.1	0.0	0.5
1	P10	14.0	-0.8	-0.7	-0.2	-0.2	-0.4	-0.2
1	P11	13.5	-0.5	-0.4	0.2	-0.2	-0.2	0.4
1	P12	13.2	0.0	0.2	0.4	0.1	0.4	0.7
1	P13	14.1	-0.9	-0.9	-0.9	-0.9	-0.8	-0.3
1	P14	13.5	-0.3	-0.2	-0.1	-0.5	-0.2	0.7
1	P15	13.2	-0.1	-0.1	0.0	-0.1	0.1	0.7
1	P16	13.8	-0.8	-0.6	-0.7	-0.6	-0.6	0.4
1	P17	13.3	-0.3	-0.2	-0.3	-0.1	-0.1	0.0
1	P18	14.5	-1.3	-1.0	-1.2	-1.4	-1.3	-0.7
1	P19	13.2	-0.2	0.0	-0.1	-0.4	-0.1	0.2
1	P20	14.8	-1.7	-1.5	-1.6	-1.3	-1.3	-1.2
1	P21	14.1	-1.0	-0.8	-0.9	-0.7	-0.7	-0.6
1	P22	13.9	-0.3	0.1	-0.3	-0.6	-0.2	-0.1
1	P23	14.4	-0.9	-0.8	-1.0	-1.4	-1.3	-0.7
1	P24	13.3	0.0	0.1	-0.1	-0.4	-0.2	0.0
1	P25	13.3	-0.3	-0.2	-0.5	-0.4	-0.1	-0.1
2	P1	10.5	0.1	0.4	0.0	0.2	0.7	0.9
2	P2	10.6	0.1	0.3	-0.1	0.2	0.7	0.7
2	P3	10.5	0.0	0.2	0.0	0.1	0.5	0.1
2	P4	10.8	0.2	0.1	-0.1	-0.1	0.4	0.0
2	P5	10.8	0.4	0.4	0.1	0.1	0.7	0.3
2	P6	10.5	0.2	0.3	0.1	0.3	1.1	0.7
2	P7	10.7	0.6	0.6	0.3	0.5	1.1	0.9
2	P8	10.8	0.0	-0.1	-0.1	0.0	0.7	0.5
2	P9	10.7	0.0	0.0	-0.1	0.0	0.9	1.0
2	P10	11.1	0.1	0.0	-0.1	0.0	1.1	0.5
2	P11	10.7	-0.1	-0.1	0.0	-0.1	0.5	0.3
2	P12	11.2	-0.6	-0.5	-0.6	-0.5	0.1	0.0
2	P13	10.6	0.0	0.0	0.0	0.2	0.9	0.6
2	P14	10.6	0.1	0.0	0.1	0.2	0.7	0.5

Tracking Code: TC0312--0104

Part #: MECT-150-01-M-D-RA1

Part description: : 0.8 mm [0.031"] Right Angled Edge Card Assembly

2	P15	10.8	0.0	-0.2	0.0	0.2	1.3	0.5
2	P16	10.8	-0.1	-0.1	-0.1	0.2	1.3	1.0
2	P17	10.5	-0.1	0.0	0.0	0.0	0.4	0.4
2	P18	10.7	-0.1	-0.2	-0.1	0.0	0.6	0.3
2	P19	10.8	-0.2	-0.2	-0.1	-0.3	0.4	0.4
2	P20	10.9	-0.2	-0.1	0.3	-0.1	1.3	1.1
2	P21	11.0	0.5	-0.1	0.2	0.0	1.4	1.2
2	P22	11.0	-0.1	-0.2	-0.1	-0.2	1.1	0.6
2	P23	11.3	-0.5	-0.5	-0.4	-0.4	0.9	0.2
2	P24	10.8	-0.1	0.1	0.0	-0.2	1.2	1.0
2	P25	11.1	-0.3	-0.1	0.2	-0.2	1.9	1.0
3	P1	14.6	-1.1	-1.2	-1.0	-1.2	-0.9	-0.3
3	P2	15.0	-0.6	-1.3	-1.3	-1.5	-0.9	1.1
3	P3	13.7	-0.2	-0.3	-0.2	-0.3	0.0	0.1
3	P4	14.3	-0.6	-1.0	-0.9	-1.0	-0.6	0.1
3	P5	14.0	-0.8	-0.8	-0.9	-1.0	-0.8	0.0
3	P6	13.9	-0.3	-0.5	-0.4	-0.6	-0.3	-0.2
3	P7	14.0	0.0	-0.4	-0.6	-0.6	-0.2	0.3
3	P8	14.4	-0.5	-1.0	-0.7	-0.9	-0.5	0.1
3	P9	13.6	-0.1	-0.2	-0.1	-0.3	0.1	1.0
3	P10	14.1	-0.3	-0.7	-0.8	-0.8	-0.5	0.3
3	P11	13.6	0.0	-0.4	-0.3	-0.4	0.1	1.3
3	P12	13.5	-0.1	-0.3	0.9	0.0	0.0	1.2
3	P13	14.2	-0.3	-0.7	-0.6	-0.6	-0.3	0.5
3	P14	13.7	0.4	-0.4	0.6	-0.3	-0.1	0.7
3	P15	13.3	0.0	-0.2	0.1	-0.2	0.6	1.1
3	P16	13.4	-0.1	-0.3	-0.1	-0.2	0.1	1.4
3	P17	13.6	-0.4	-0.3	-0.5	-0.4	-0.1	0.3
3	P18	13.8	0.6	-0.5	-0.5	-0.7	-0.1	0.3
3	P19	13.4	-0.1	-0.2	-0.1	-0.1	0.1	0.3
3	P20	14.3	0.1	-0.8	-0.5	-0.8	-0.5	-0.3
3	P21	13.8	-0.4	-0.8	-0.8	-0.7	-0.3	0.2
3	P22	13.5	0.1	0.1	-0.2	0.0	0.4	1.2
3	P23	13.5	-0.1	-0.2	-0.2	-0.3	0.0	0.2
3	P24	13.1	0.1	-0.1	-0.1	-0.1	0.1	0.6
3	P25	13.2	0.2	-0.2	-0.2	-0.1	0.1	0.5
4	P1	11.1	-0.1	0.0	0.0	-0.1	0.6	1.3
4	P2	11.5	0.2	0.2	-0.1	-0.1	0.4	0.9
4	P3	11.6	-0.6	-0.5	-0.5	-0.5	0.2	0.7
4	P4	11.0	0.5	0.1	0.0	0.1	0.7	2.2
4	P5	11.2	-0.3	-0.3	-0.3	-0.4	0.3	3.1
4	P6	11.1	-0.2	-0.1	-0.2	-0.1	0.4	2.9
4	P7	11.1	-0.1	-0.2	-0.2	-0.1	0.6	4.8
4	P8	10.9	0.1	0.0	0.1	0.2	1.3	2.5
4	P9	10.9	-0.1	0.1	-0.1	0.0	1.0	2.7
4	P10	11.0	0.0	0.1	0.1	0.1	1.1	1.7
4	P11	10.9	0.0	0.0	0.0	0.1	1.0	3.0
4	P12	11.1	0.1	0.1	0.0	0.1	0.9	2.6
4	P13	10.9	0.1	0.0	0.1	0.2	0.8	3.8
4	P14	11.2	0.0	-0.2	0.0	0.0	0.7	2.1

Tracking Code: TC0312--0104

Part #: MECT-150-01-M-D-RA1

Part description: : 0.8 mm [0.031"] Right Angled Edge Card Assembly

4	P15	11.0	0.0	0.0	0.0	0.1	1.2	2.6
4	P16	10.8	0.0	0.0	0.0	0.1	0.5	2.8
4	P17	10.7	0.1	0.2	0.1	0.3	0.8	3.5
4	P18	10.8	0.3	0.4	0.2	0.2	1.0	3.2
4	P19	11.2	0.0	-0.1	0.1	0.0	0.6	1.1
4	P20	10.9	0.4	0.1	0.4	0.3	1.7	1.7
4	P21	10.8	0.0	0.1	0.4	0.3	1.0	3.3
4	P22	11.2	0.3	0.1	0.2	0.0	0.9	3.6
4	P23	10.8	0.2	0.2	0.7	0.2	1.3	3.0
4	P24	11.2	-0.1	0.0	0.4	0.4	1.6	3.4
4	P25	11.1	0.1	0.1	0.4	0.1	1.0	1.8
5	P1	13.4	0.1	0.2	0.2	-0.1	0.3	0.4
5	P2	13.3	0.2	0.3	0.3	0.1	0.8	0.2
5	P3	13.5	0.0	0.3	0.4	-0.1	0.4	0.1
5	P4	13.6	0.0	0.1	-0.1	-0.2	0.2	0.3
5	P5	13.8	-0.3	-0.3	-0.3	-0.3	0.5	0.1
5	P6	14.0	-0.1	0.2	0.1	0.0	0.4	0.1
5	P7	13.7	-0.4	-0.2	-0.3	-0.4	0.2	-0.3
5	P8	13.8	-0.3	-0.3	-0.1	-0.3	0.0	0.0
5	P9	13.8	-0.4	-0.4	-0.4	-0.4	-0.1	-0.3
5	P10	13.9	-0.3	0.0	-0.3	-0.3	0.0	-0.2
5	P11	13.2	0.1	0.0	0.1	0.0	0.2	0.1
5	P12	13.6	-0.4	-0.4	-0.4	-0.3	-0.1	-0.3
5	P13	14.1	-0.3	-0.4	-0.3	-0.4	-0.1	-0.3
5	P14	13.8	-0.3	-0.3	-0.2	-0.1	-0.1	0.0
5	P15	13.8	-0.4	-0.4	-0.2	-0.4	-0.1	-0.3
5	P16	13.9	-0.2	-0.4	-0.1	-0.4	0.1	-0.2
5	P17	14.1	-0.5	-0.7	-0.4	-0.6	-0.4	-0.5
5	P18	13.7	-0.2	-0.3	-0.3	-0.3	0.1	-0.1
5	P19	14.0	-0.7	-0.7	-0.6	-0.8	-0.5	-0.6
5	P20	14.5	-1.1	-1.1	-1.1	-1.2	-0.9	-1.0
5	P21	13.5	-0.2	-0.4	-0.2	-0.2	0.1	-0.1
5	P22	13.5	-0.1	-0.3	-0.1	-0.2	-0.1	-0.1
5	P23	13.5	-0.2	-0.3	-0.1	-0.3	0.1	0.0
5	P24	13.2	0.0	-0.1	0.1	0.0	0.3	0.1
5	P25	13.2	0.0	0.0	0.1	0.0	1.0	0.5
6	P1	11.0	0.0	-0.1	-0.2	-0.2	0.3	2.0
6	P2	11.1	0.0	-0.1	-0.6	-0.3	0.3	1.8
6	P3	10.9	0.0	0.0	-0.2	-0.1	0.3	0.8
6	P4	10.9	0.0	-0.2	-0.3	-0.3	0.5	0.9
6	P5	11.0	-0.1	-0.3	-0.3	-0.2	0.4	1.8
6	P6	10.9	0.0	0.0	-0.2	0.0	0.3	0.3
6	P7	11.2	-0.4	-0.4	-0.5	-0.3	0.1	1.0
6	P8	11.0	-0.1	0.0	-0.1	-0.2	0.3	1.0
6	P9	10.9	0.2	-0.1	-0.1	-0.1	0.9	1.7
6	P10	11.1	-0.2	-0.3	-0.4	-0.3	0.6	0.3
6	P11	11.1	-0.3	-0.4	-0.3	-0.3	0.8	0.8
6	P12	10.6	0.0	0.1	0.0	0.0	0.6	0.7
6	P13	10.8	-0.2	-0.1	-0.2	-0.1	0.4	0.4
6	P14	10.9	-0.2	-0.1	-0.1	-0.1	0.9	0.5

Tracking Code: TC0312--0104

Part #: MECT-150-01-M-D-RA1

Part description: : 0.8 mm [0.031"] Right Angled Edge Card Assembly

6	P15	11.0	-0.1	-0.1	-0.1	-0.1	0.6	1.0
6	P16	10.7	-0.1	-0.2	-0.1	-0.2	0.2	0.3
6	P17	10.7	0.2	0.2	0.1	0.1	0.8	1.4
6	P18	10.8	-0.1	-0.1	-0.2	-0.1	0.2	0.6
6	P19	10.8	-0.1	-0.1	-0.1	-0.1	0.6	0.9
6	P20	10.7	-0.1	0.0	0.0	-0.1	0.5	1.0
6	P21	10.9	-0.2	-0.1	-0.1	-0.1	0.5	0.8
6	P22	10.8	0.0	0.0	0.0	0.2	0.6	1.0
6	P23	11.2	-0.3	-0.2	-0.1	0.1	0.2	1.5
6	P24	10.8	-0.1	0.2	0.1	0.1	0.5	0.7
6	P25	10.9	-0.3	0.1	0.2	0.0	0.3	1.0
7	P1	13.4	-0.1	-0.1	-0.2	-0.2	0.2	4.2
7	P2	13.3	-0.2	0.3	0.0	-0.2	0.4	1.7
7	P3	13.4	0.0	-0.1	-0.1	-0.2	0.2	1.4
7	P4	13.5	-0.1	0.4	-0.2	-0.1	-0.1	2.5
7	P5	13.2	-0.1	0.3	-0.1	-0.1	0.1	2.3
7	P6	13.5	-0.2	0.5	-0.2	-0.3	0.1	1.7
7	P7	13.8	-0.4	-0.4	-0.5	-0.4	-0.2	0.7
7	P8	15.1	-2.0	-0.6	-2.1	-1.9	-1.6	0.4
7	P9	13.8	-0.6	-0.7	-0.8	-0.8	-0.5	0.6
7	P10	14.1	-0.8	-0.1	-0.9	-0.9	-0.5	1.5
7	P11	13.3	0.0	0.7	-0.2	0.0	0.3	2.2
7	P12	13.8	-0.6	-0.4	-0.7	-0.5	-0.1	0.7
7	P13	13.9	-0.4	-0.4	-0.5	-0.5	0.1	0.3
7	P14	13.8	-0.5	-0.2	-0.4	-0.3	-0.1	2.0
7	P15	14.0	-0.3	-0.4	-0.4	-0.5	-0.1	0.0
7	P16	13.5	-0.1	-0.2	-0.2	-0.2	0.3	0.3
7	P17	13.3	-0.2	-0.1	-0.1	-0.2	0.3	1.2
7	P18	13.5	-0.2	-0.3	-0.2	-0.2	0.1	0.5
7	P19	13.9	-0.6	-0.4	-0.6	-0.6	-0.2	0.0
7	P20	13.6	-0.3	-0.5	-0.4	-0.5	-0.2	0.0
7	P21	13.2	0.0	0.1	0.0	0.0	0.3	2.4
7	P22	13.4	-0.2	0.0	-0.2	-0.1	0.4	2.1
7	P23	13.8	-0.5	-0.6	-0.6	-0.6	-0.2	1.0
7	P24	13.2	-0.1	0.2	0.1	0.0	0.4	1.2
7	P25	13.6	-0.3	-0.1	-0.1	-0.2	0.3	0.6
8	P1	11.1	-0.1	-0.2	0.0	-0.2	1.2	0.5
8	P2	11.2	-0.4	-0.5	-0.4	-0.5	0.4	0.7
8	P3	12.1	-1.3	-1.2	-1.2	-1.2	-0.2	-0.2
8	P4	12.4	-1.6	-1.4	-1.5	-1.4	0.0	0.4
8	P5	11.5	-0.6	-0.4	-0.5	-0.6	0.3	1.2
8	P6	14.3	-3.5	-3.3	-3.4	-3.5	-2.4	-2.3
8	P7	13.9	-2.9	-2.9	-2.7	-3.0	-0.9	-1.0
8	P8	10.8	-0.1	0.0	0.1	0.0	1.1	0.6
8	P9	11.3	-0.5	-0.4	-0.4	-0.5	0.6	0.8
8	P10	12.0	-1.2	-1.1	-1.0	-1.2	-0.2	0.8
8	P11	11.8	-1.0	-1.0	-0.8	-0.9	0.1	-0.3
8	P12	11.2	-0.2	-0.2	-0.3	-0.4	0.4	0.1
8	P13	11.6	-0.6	-0.6	-0.7	-0.7	0.0	-0.1
8	P14	12.1	-0.9	-1.0	-1.0	-1.1	0.8	0.0

Tracking Code: TC0312--0104	Part #: MECT-150-01-M-D-RA1
Part description: : 0.8 mm [0.031"] Right Angled Edge Card Assembly	

8	P15	11.1	-0.1	0.0	0.0	0.0	2.5	1.0
8	P16	11.0	-0.1	0.1	0.0	0.0	1.1	0.7
8	P17	12.1	-0.8	-0.9	-1.0	-1.0	0.6	-0.1
8	P18	11.4	-0.4	-0.4	-0.4	-0.3	0.6	0.2
8	P19	10.9	0.0	0.0	0.1	0.1	2.1	1.0
8	P20	10.9	-0.1	0.0	0.0	0.1	0.8	0.4
8	P21	11.7	-0.9	-0.7	-0.7	-0.7	-0.1	-0.1
8	P22	11.0	-0.1	0.0	0.2	0.0	1.3	1.5
8	P23	12.0	-1.2	-1.0	-0.9	-1.0	0.0	-0.2
8	P24	12.0	-1.1	-0.9	-0.9	-1.0	-0.4	-0.4
8	P25	11.1	0.0	0.0	0.1	0.0	0.8	1.0

**EQUIPMENT AND CALIBRATION SCHEDULES****Equipment #:** THL-01**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: 7/15/02, Next Cal: 7/15/03

**Equipment #:** OGP-01**Description:** 6"X 6" Video Measuring Machine**Manufacturer:** Optical Gauging Products**Model:** Smartscope 200 CFOV**Serial #:** SF2001956**Accuracy:** See Manual

... Last Cal: 3/12/2003, Next Cal: 9/12/2003

**Equipment #:** MO-01**Description:** Micro-Ohmmeter**Manufacturer:** Keithley**Model:** 580**Serial #:** 0772740**Accuracy:** See Manual

... Last Cal: 6/25/02, Next Cal: 6/25/03

**Equipment #:** MO-03**Description:** Multimeter /Data Acquisition System**Manufacturer:** Keithley**Model:** 2700**Serial #:** 0791975**Accuracy:** See Manual

... Last Cal: 6/25/02, Next Cal: 6/25/03

**Equipment #:** TCT-03**Description:** Dillon Quantrol TC2 Test Stand**Manufacturer:** Dillon Quantrol**Model:** TC2**Serial #:** 02-1033-03**Accuracy:** Speed Accuracy: +/- 5% of indicated speed; Displacement: +/- 5 micrometers.

... Last Cal: 03/21/02, Next Cal: 03/21/03

**Equipment #:** LC-2500N(icell)**Description:** 2500 N Load Cell for Dillon Quantrol**Manufacturer:** Dillon Quantrol**Model:** icell**Serial #:** 01-0132-01**Accuracy:** .10% of capacity

... Last Cal: 3/21/02, Next Cal: 3/21/03

Tracking Code: TC0312--0104

Part #: MECT-150-01-M-D-RA1

Part description: : 0.8 mm [0.031"] Right Angled Edge Card Assembly

**Equipment #:** OV-03

**Description:** Cascade Tek Forced Air Oven

**Manufacturer:** Cascade Tek

**Model:** TFO-5

**Serial #:** 0500100

**Accuracy:** Temp. Stability: +/- .1C/C change in ambient Temp. Stability: +/- .1C/C change in ambient  
... Last Cal: 6/25/02, Next Cal: 6/25/03

**Equipment #:** THC-01

**Description:** Temperature/Humidity Chamber

**Manufacturer:** Thermotron

**Model:** SM-8-7800

**Serial #:** 30676

**Accuracy:** See Manual

... Last Cal: 5/13/02, Next Cal: 5/13/03