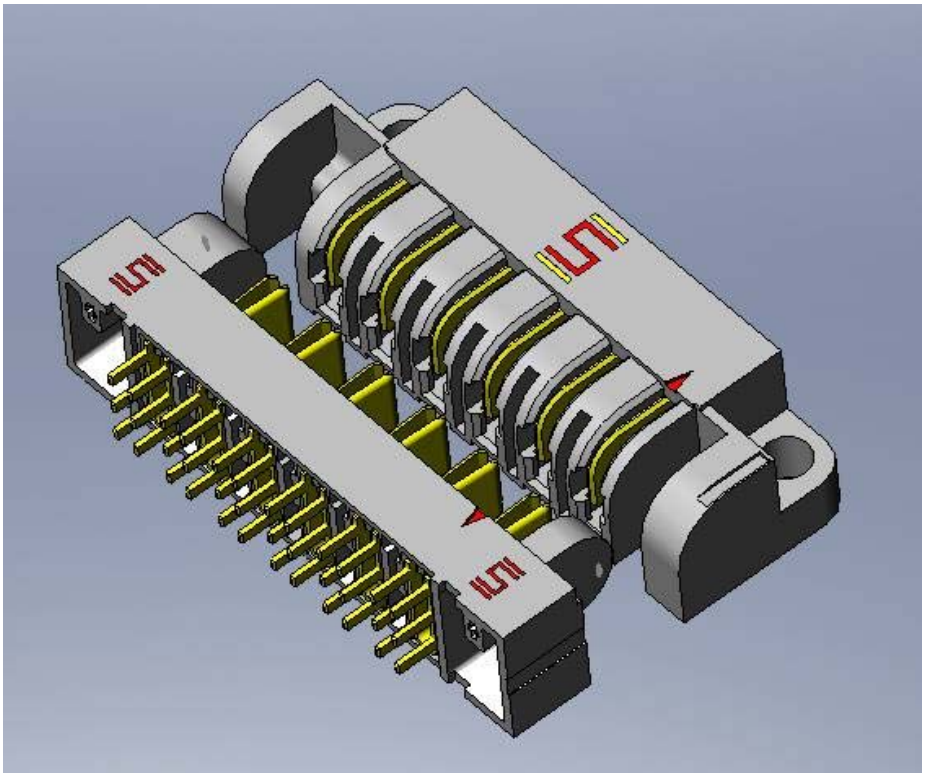
Project Number:	Tracking Code: TC0835-FMPT/FMPS-1925		
Requested by: Brandon Harpenau	Date: 8/27/2008	Product Rev: 0	
Part #: FMPT-108-01-L-S-V-LC/FMPS-108-01-L-S-RA-LC	Lot #: 1	Tech: Rodney Riley & Gary Lomax	Eng: Troy Cook
Part description: FMPT-108-01-L-S-V-LC/FMPS-108-01-L-S-RA-LC			Qty to test: 1
Test Start: 8/27/2008	Test Completed: 10/23/2008		



DESIGN VERIFICATION TEST REPORT

PART DESCRIPTION

FMPT-108-01-L-S-V-LC/FMPS-108-01-L-S-RA-LC

CERTIFICATION

All instruments and measuring equipment were calibrated to National Institute for Standards and Technology (NIST) traceable standards according to IS0 10012-l and ANSI/NCSL 2540-1, as applicable.

SCOPE

To perform the following tests: Design Verification Testing of FMPX.

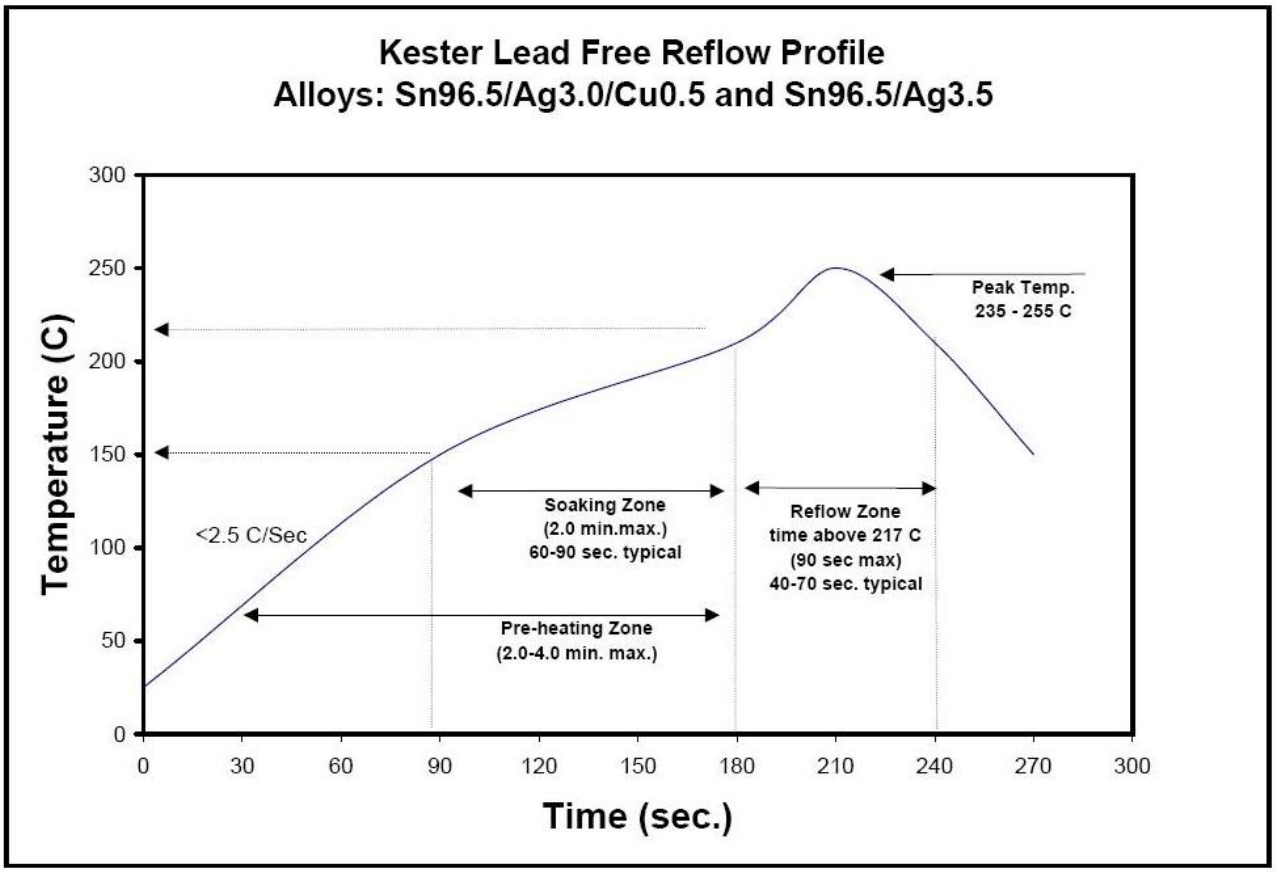
APPLICABLE DOCUMENTS

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 and DWV/IR testing were cleaned according to TLWI-0001.
4) Either an automated cleaning procedure or an ultrasonic cleaning procedure may be used.
5) The automated procedure is used with aqueous compatible soldering materials.
6) Parts not intended for testing LLCR and DWV/IR are visually inspected and cleaned if necessary.
7) Any additional preparation will be noted in the individual test sequences.
8) Solder Information: Lead Free
9) Re-Flow Time/Temp: See accompanying profile.
10) Samtec Test PCBs used: PCB-101325-TST-XX, PCB-101326-TST-XX

TYPICAL OVEN PROFILE (Soldering Parts to Test Boards)



FLOWCHARTS

Mating/Unmating/Gaps/Plating Verification

TEST STEP	GROUP A "L" Plating 10 Boards 80 points	GROUP B "L" Plating Individual Contacts (30) min
01	Contact Gaps	Setup Approve
02	Mating / Unmating	Plating Verification
03	Data Review	Data Review
04	100 Cycles	
05	Mating / Unmating	
06	Contact Gaps	
07	Data Review	
08	Thermal Aging (Mated)	
09	Mating / Unmating	
10	Contact Gaps	
11	Data Review	
12	Humidity (Mated)	
13	Contact Gaps	
14	Mating / Unmating	

Thermal Aging = EIA-364-17, Test Condition 4, 105 deg C;
Time Condition 'B' (250 hours)
Humidity =EIA-364-31, Test Condition B (240 Hours)
and Method III (+25 ° C to +65 ° C @ 90%RH to 98% RH)
ambient pre-condition and delete steps 7a and 7b
Mating/Un-Mating Forces = EIA-364-13
Normal Force = EIA-364-04
(Perpendicular) displacement Force = 12.7 mm/min +/- 6 mm/min
Spec is 50 N @ 1 mm displacement
Contact Gaps/Height - No standard method. Usually measured optically

IR / DWV

TEST STEP	GROUP A 2 Boards "L" Plating Ambient	GROUP B1 2 Boards "L" Plating Ambient	GROUP B2 2 Boards "L" Plating Thermal	GROUP B3 2 Boards "L" Plating Humidity
01	IR	DWV/Working Voltage	Thermal Aging	Humidity
02	Data Review		DWV/Working Voltage	DWV/Working Voltage
03	Thermal Aging			
04	IR			
05	Data Review			
06	Humidity			
07	IR			

Thermal Aging = EIA-364-17, Test Condition 4, 105 deg C;
Time Condition 'B' (250 hours)
Humidity =EIA-364-31, Test Condition B (240 Hours)
and Method III (+25 ° C to +65 ° C @ 90%RH to 98% RH)
ambient pre-condition and delete steps 7a and 7b
IR = EIA-364-21
DWV = EIA-364-20

FLOWCHARTS Continued

Durability/Thermal Age/Cyclic Humidity

TEST STEP	GROUP A "L" Plating 45° UP 80 Points 100 Cycles	GROUP B "L" Plating 45° DOWN 80 Points 100 Cycles	GROUP C "L" Plating STRAIGHT MATE 80 Points 100 Cycles	GROUP D "L" Plating PERPENDICULAR MATE 80 Points 100 Cycles
01	LLCR-1	LLCR-1	LLCR-1	LLCR-1
02	Data Review	Data Review	Data Review	Data Review
03	100 Cycles	100 Cycles	100 Cycles	100 Cycles
04	LLCR-2	LLCR-2	LLCR-2	LLCR-2
05	Data Review	Data Review	Data Review	Data Review
06	Thermal Age	Thermal Age	Thermal Age	Thermal Age
07	LLCR-3	LLCR-3	LLCR-3	LLCR-3
08	Data Review	Data Review	Data Review	Data Review
09	Cyclic Humidity	Cyclic Humidity	Cyclic Humidity	Cyclic Humidity
10	LLCR-4	LLCR-4	LLCR-4	LLCR-4

Thermal Aging = EIA-364-17, Test Condition 4, 105 deg C;
Time Condition 'B' (250 hours)
Humidity =EIA-364-31, Test Condition B (240 Hours)
and Method III (+25 ° C to +65 ° C @ 90%RH to 98% RH)
ambient pre-condition and delete steps 7a and 7b
LLCR = EIA-364-23, LLCR
use Keithley 580 in the dry circuit mode, 10 mA Max

ATTRIBUTE DEFINITIONS

The following is a brief, simplified description of attributes.

THERMAL:

1) EIA-364-17, *Temperature Life with or without Electrical Load Test Procedure for Electrical Connectors.*
2) Test Condition 4 at 105° C.
3) Test Time Condition B for 250 hours.
4) All test samples are pre-conditioned at ambient.
5) All test samples are exposed to environmental stressing in the mated condition.

HUMIDITY:

1) Reference document: EIA-364-31, *Humidity Test Procedure for Electrical Connectors.*
2) Test Condition B, 240 Hours.
3) Method III, +25° C to + 65° C, 90% to 98% Relative Humidity excluding sub-cycles 7a and 7b.
4) All samples are pre-conditioned at ambient.
5) All test samples are exposed to environmental stressing in the mated condition.

CONTACT GAPS:

1) Gaps 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.

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.

INSULATION RESISTANCE (IR):

To determine the resistance of insulation materials to leakage of current through or on the surface of these materials when a DC potential is applied.

1) PROCEDURE:
    a. Reference document: EIA-364-21, *Insulation Resistance Test Procedure for Electrical Connectors.*
    b. Test Conditions:
        i. Between Adjacent Contacts or Signal-to-Ground
        ii. Electrification Time 2.0 minutes
        iii. Test Voltage (500 VDC) corresponds to calibration settings for measuring resistances.
2) MEASUREMENTS:
3) When the specified test voltage is applied (VDC), the insulation resistance shall not be less than 5000 megohms.

DIELECTRIC WITHSTANDING VOLTAGE (DWV):

To determine if the sockets can operate at its rated voltage and withstand momentary over potentials due to switching, surges, and other similar phenomenon. Separate samples are used to evaluate the effect of environmental stresses so not to influence the readings from arcing that occurs during the measurement process.

1) PROCEDURE:
    a. Reference document: EIA-364-20, *Withstanding Voltage Test Procedure for Electrical Connectors*.
    b. Test Conditions:
        i. Between Adjacent Contacts or Signal-to-Ground
        ii. Rate of Application 500 V/Sec
        iii. Test Voltage (VAC) until breakdown occurs
2) MEASUREMENTS/CALCULATIONS
    a. The breakdown voltage shall be measured and recorded.
    b. The dielectric withstanding voltage shall be recorded as 75% of the minimum breakdown voltage.
    c. The working voltage shall be recorded as one-third (1/3) of the dielectric withstanding voltage (one-fourth of the breakdown voltage).

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. <= +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, FMPS

- **Initial**
  - **Min ---------- 1.39 mm**
  - **Max ---------- 1.47 mm**
- **After 100 Cycles**
  - **Min ---------- 1.35 mm**
  - **Max ---------- 1.51 mm**
- **Thermal**
  - **Min ---------- 1.46 mm**
  - **Max ---------- 1.50 mm**
- **Humidity**
  - **Min ---------- 1.46 mm**
  - **Max ---------- 1.51 mm**

Contact Gaps, FMPT

- **Initial**
  - **Min ---------- 1.85 mm**
  - **Max ---------- 2.11 mm**
- **After 100 Cycles**
  - **Min ---------- 1.84 mm**
  - **Max ---------- 2.05 mm**
- **Thermal**
  - **Min ---------- 1.72 mm**
  - **Max ---------- 1.82 mm**
- **Humidity**
  - **Min ---------- 1.72 mm**
  - **Max ---------- 1.82 mm**

Insulation Resistance minimums, IR

- **Initial**
  - **Mated ----------100,000 Meg Ω ---------- Pass**
- **Thermal**
  - **Mated ----------100,000 Meg Ω**
- **Humidity**
  - **Mated ---------- 75,000 Meg Ω**

Dielectric Withstanding Voltage minimums, DWV

- **Initial**
  - **Breakdown**
    - **Mated ----------2,450 VAC**
  - **DWV**
    - **Mated ----------1,838 VAC**
  - **Working voltage**
    - **Mated ----------613 VAC**
- **Thermal**
  - **Breakdown**
    - **Mated ----------2,400 VAC**
  - **DWV**
    - **Mated ----------1,800 VAC**
  - **Working voltage**
    - **Mated ----------600 VAC**
- **Humidity**
  - **Breakdown**
    - **Mated ----------2,100 VAC**
  - **DWV**
    - **Mated ----------1,575 VAC**
  - **Working voltage**
    - **Mated ----------525 VAC**

Mating – Unmating Forces

- **Initial**
  - **Mating**
    - **Min ---------- 4.1 Lbs**
    - **Max---------- 6.5 Lbs**
  - **Unmating**
    - **Min ---------- 3.1 Lbs**
    - **Max---------- 4.6 Lbs**
- **After 100 Cycles**
  - **Mating**
    - **Min ---------- 4.9 Lbs**
    - **Max---------- 8.7 Lbs**
  - **Unmating**
    - **Min ---------- 4.8 Lbs**
    - **Max---------- 8.2 Lbs**
- **Thermal**
  - **Mating**
    - **Min ---------- 3.0 Lbs**
    - **Max---------- 4.4 Lbs**
  - **Unmating**
    - **Min ---------- 2.1 Lbs**
    - **Max---------- 4.1 Lbs**
- **Humidity**
  - **Mating**
    - **Min ---------- 3.4 Lbs**
    - **Max---------- 4.5 Lbs**
  - **Unmating**
    - **Min ---------- 3.1 Lbs**
    - **Max---------- 4.0 Lbs**

LLCR Durability (200 LLCR test points), 45° Down

- **Initial ---------- 0.6 mOhms Max**
- **Durability, 100 Cycles**
  - **<= +5.0 mOhms ---------- 80 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**
  - **<= +5.0 mOhms ---------- 80 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**
  - **<= +5.0 mOhms ---------- 79 Points ---------- Stable**
  - **+5.1 to +10.0 mOhms ---------- 0 Points ---------- Minor**
  - **+10.1 to +15.0 mOhms ---------- 1 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**

LLCR Durability (200 LLCR test points), 45° Up

- **Initial ---------- 0.7 mOhms Max**
- **Durability, 100 Cycles**
  - **<= +5.0 mOhms ---------- 80 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**
  - **<= +5.0 mOhms ---------- 80 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**
  - **<= +5.0 mOhms ---------- 78 Points ---------- Stable**
  - **+5.1 to +10.0 mOhms ---------- 2 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**

LLCR Durability (200 LLCR test points), Perpendicular

- **Initial ---------- 0.8 mOhms Max**
- **Durability, 100 Cycles**
  - **<= +5.0 mOhms ---------- 80 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**
  - **<= +5.0 mOhms ---------- 80 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**
  - **<= +5.0 mOhms ---------- 80 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**

LLCR Durability (200 LLCR test points), Straight

- **Initial ---------- 0.8 mOhms Max**
- **Durability, 100 Cycles**
  - **<= +5.0 mOhms ---------- 80 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**
  - **<= +5.0 mOhms ---------- 80 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**
  - **<= +5.0 mOhms ---------- 80 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:

FMPS

Initial		After 100 Cycles		After Thermal		After Humidity	
Measured in mm		Measured in mm		Measured in mm		Measured in mm	
Minimum	1.3920	***Minimum***	1.3460	***Minimum***	1.4580	***Minimum***	1.4560
Maximum	1.4720	***Maximum***	1.5060	***Maximum***	1.4960	***Maximum***	1.5060
Average	1.4352	***Average***	1.3919	***Average***	1.4760	***Average***	1.4769
St. Dev.	0.0144	***St. Dev.***	0.0330	***St. Dev.***	0.0091	***St. Dev.***	0.0094
Count	80	***Count***	80	***Count***	80	***Count***	80

FMPT

Initial		After 100 Cycles		After Thermal		After Humidity	
Measured in mm		Measured in mm		Measured in mm		Measured in mm	
Minimum	1.8540	***Minimum***	1.8420	***Minimum***	1.7200	***Minimum***	1.7160
Maximum	2.1100	***Maximum***	2.0480	***Maximum***	1.8180	***Maximum***	1.8180
Average	1.9202	***Average***	1.8962	***Average***	1.7689	***Average***	1.7701
St. Dev.	0.0280	***St. Dev.***	0.0246	***St. Dev.***	0.0247	***St. Dev.***	0.0247
Count	80	***Count***	80	***Count***	80	***Count***	80

MATING/UNMATING:

	Initial				After 100 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)
Minimum	66.1	4.1	49.8	3.1	78.4	4.9	77.3	4.8
Maximum	104.0	6.5	73.6	4.6	138.9	8.7	131.4	8.2
Average	87.6	**5.5**	59.9	**3.7**	95.9	**6.0**	95.5	**6.0**
	After Thermal				After Humidity			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)
Minimum	47.4	3.0	34.2	2.1	55.0	3.4	49.3	3.1
Maximum	70.6	4.4	65.1	4.1	72.6	4.5	63.8	4.0
Average	59.2	**3.7**	44.5	**2.8**	61.4	**3.8**	58.3	**3.6**

DATA SUMMARIES Continued

INSULATION RESISTANCE (IR):

	Pin-Pin
	Mated
Minimum	FMPT/FMPS
Initial	100000
Thermal	100000
Humidity	75000

DIELECTRIC WITHSTANDING VOLTAGE (DWV):

		Pin-Pin
		Mated
Minimum		FMPT/FMPS
Breakdown Voltage	Initial	2450
	Thermal	2400
	Humidity	2100
DWV	Initial	1838
	Thermal	1800
	Humidity	1575
Working Voltage	Initial	613
	Thermal	600
	Humidity	525

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. <= +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

45 ° Down

mOhm values	Actual Initial	Delta 100 Cycles	Delta Thermal	Delta Humidity
Average	0.5	0.1	0.1	0.5
St. Dev.	0.0	0.1	0.1	1.4
Min	0.4	0.0	-0.1	0.0
Max	0.6	0.6	0.3	12.7
Count	80	80	80	80

45 ° Up

mOhm values	Actual Initial	Delta 100 Cycles	Delta Thermal	Delta Humidity
Average	0.5	0.1	0.1	0.5
St. Dev.	0.0	0.1	0.1	1.2
Min	0.4	-0.1	-0.1	-0.1
Max	0.7	0.3	0.8	7.8
Count	80	80	80	80

Perpendicular

mOhm values	Actual Initial	Delta 100 Cycles	Delta Thermal	Delta Humidity
Average	0.6	0.1	0.0	0.2
St. Dev.	0.1	0.1	0.1	0.2
Min	0.4	-0.2	-0.2	-0.1
Max	0.8	0.6	0.4	1.1
Count	80	80	80	80

Straight

mOhm values	Actual Initial	Delta 100 Cycles	Delta Thermal	Delta Humidity
Average	0.5	0.1	0.1	0.3
St. Dev.	0.1	0.2	0.1	0.3
Min	0.4	-0.3	-0.3	-0.2
Max	0.8	0.7	0.4	1.7
Count	80	80	80	80

DATA

CONTACT GAPS:

FMPS

Initial										
Measured in mm										
Pos.#	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**B8**	**B9**	**B10**
1	1.428	1.438	1.438	1.436	1.434	1.422	1.426	1.45	1.426	1.43
2	1.452	1.458	1.472	1.454	1.458	1.45	1.392	1.468	1.456	1.452
3	1.454	1.452	1.438	1.46	1.43	1.452	1.448	1.448	1.45	1.456
4	1.436	1.436	1.446	1.44	1.426	1.436	1.442	1.442	1.432	1.442
5	1.42	1.416	1.424	1.424	1.414	1.414	1.418	1.414	1.412	1.416
6	1.43	1.428	1.43	1.434	1.43	1.432	1.426	1.438	1.42	1.428
7	1.454	1.442	1.45	1.422	1.426	1.442	1.434	1.434	1.438	1.43
8	1.44	1.422	1.426	1.43	1.426	1.424	1.424	1.43	1.422	1.422
After 100 Cycles										
Measured in mm										
Pos.#	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**B8**	**B9**	**B10**
1	1.35	1.386	1.406	1.376	1.39	1.406	1.38	1.406	1.362	1.374
2	1.392	1.416	1.434	1.384	1.43	1.408	1.412	1.4	1.39	1.374
3	1.38	1.37	1.348	1.408	1.408	1.374	1.404	1.372	1.372	1.414
4	1.366	1.412	1.41	1.358	1.438	1.404	1.388	1.386	1.37	1.372
5	1.406	1.372	1.36	1.354	1.374	1.38	1.372	1.364	1.346	1.348
6	1.374	1.352	1.372	1.368	1.418	1.374	1.372	1.398	1.384	1.368
7	1.422	1.402	1.376	1.39	1.354	1.424	1.372	1.364	1.408	1.366
8	1.506	1.398	1.406	1.456	1.506	1.384	1.406	1.49	1.47	1.364
After Thermal										
Measured in mm										
Pos.#	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**B8**	**B9**	**B10**
1	1.47	1.466	1.47	1.476	1.468	1.47	1.484	1.476	1.47	1.466
2	1.48	1.48	1.492	1.466	1.476	1.476	1.488	1.47	1.476	1.47
3	1.466	1.47	1.482	1.474	1.47	1.468	1.486	1.478	1.474	1.472
4	1.466	1.47	1.468	1.466	1.462	1.464	1.468	1.464	1.46	1.46
5	1.472	1.484	1.49	1.474	1.466	1.476	1.484	1.482	1.48	1.488
6	1.484	1.494	1.476	1.484	1.468	1.49	1.482	1.474	1.48	1.484
7	1.484	1.49	1.496	1.484	1.486	1.486	1.458	1.494	1.486	1.478
8	1.466	1.482	1.476	1.47	1.482	1.474	1.484	1.482	1.47	1.464
After Humidity										
Measured in mm										
Pos.#	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**B8**	**B9**	**B10**
1	1.466	1.474	1.466	1.47	1.464	1.468	1.482	1.468	1.48	1.458
2	1.482	1.478	1.486	1.47	1.468	1.476	1.486	1.484	1.482	1.464
3	1.474	1.468	1.468	1.48	1.47	1.466	1.482	1.484	1.48	1.472
4	1.468	1.466	1.474	1.472	1.46	1.47	1.472	1.46	1.478	1.46
5	1.48	1.484	1.486	1.48	1.478	1.478	1.482	1.484	1.48	1.486
6	1.484	1.486	1.472	1.488	1.472	1.486	1.48	1.478	1.476	1.492
7	1.484	1.492	1.506	1.482	1.488	1.486	1.456	1.494	1.482	1.49
8	1.47	1.488	1.484	1.466	1.476	1.47	1.478	1.486	1.47	1.474

DATA Continued

FMPT

Initial										
Measured in mm										
Pos.#	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**B8**	**B9**	**B10**
1	1.916	1.854	1.902	2.11	1.926	1.912	1.928	1.924	1.896	1.914
2	1.912	1.894	1.936	1.92	1.926	1.912	1.926	1.92	1.88	1.916
3	1.874	1.914	1.942	1.906	1.892	1.908	1.876	1.914	1.894	1.916
4	1.934	1.91	1.912	1.918	1.924	1.916	1.926	1.918	1.91	1.914
5	1.914	1.938	1.936	1.93	1.934	1.908	1.908	1.912	1.914	1.908
6	1.894	1.93	1.926	1.94	1.948	1.916	1.96	1.926	1.918	1.92
7	1.93	1.912	1.95	1.932	1.92	1.912	1.958	1.924	1.906	1.938
8	1.904	1.924	1.908	1.95	1.946	1.922	1.916	1.914	1.904	1.926
After 100 Cycles										
Measured in mm										
Pos.#	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**B8**	**B9**	**B10**
1	1.882	1.914	1.884	1.944	1.926	1.89	1.89	1.89	1.868	1.896
2	1.908	1.896	1.918	1.908	1.902	1.888	1.922	1.892	1.89	1.898
3	1.874	1.902	1.898	1.928	1.92	1.88	1.932	1.904	1.886	1.888
4	1.906	1.918	1.91	1.914	1.912	1.88	1.878	1.878	1.886	1.882
5	1.89	1.89	1.894	1.902	1.91	1.888	1.882	1.88	1.884	1.884
6	1.862	1.886	1.922	1.894	1.884	1.884	1.864	1.892	1.87	1.882
7	1.88	1.88	1.894	1.904	1.89	1.884	1.92	1.888	1.862	1.884
8	1.842	1.908	1.894	2.048	1.918	1.894	1.908	1.898	1.884	1.89
After Thermal										
Measured in mm										
Pos.#	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**B8**	**B9**	**B10**
1	1.72	1.79	1.774	1.818	1.786	1.738	1.778	1.764	1.738	1.75
2	1.752	1.774	1.784	1.786	1.792	1.748	1.788	1.76	1.734	1.736
3	1.726	1.774	1.796	1.782	1.78	1.756	1.77	1.75	1.74	1.744
4	1.748	1.79	1.776	1.792	1.806	1.754	1.794	1.756	1.746	1.75
5	1.738	1.802	1.798	1.808	1.812	1.752	1.778	1.76	1.756	1.752
6	1.73	1.788	1.788	1.81	1.802	1.742	1.812	1.756	1.752	1.75
7	1.748	1.772	1.8	1.798	1.798	1.746	1.79	1.746	1.75	1.752
8	1.748	1.77	1.776	1.81	1.804	1.756	1.784	1.75	1.744	1.744
After Humidity										
Measured in mm										
Pos.#	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**B8**	**B9**	**B10**
1	1.748	1.794	1.786	1.812	1.806	1.74	1.78	1.742	1.74	1.74
2	1.756	1.788	1.802	1.794	1.8	1.746	1.788	1.748	1.742	1.748
3	1.742	1.798	1.79	1.8	1.802	1.74	1.8	1.75	1.758	1.754
4	1.752	1.808	1.804	1.8	1.812	1.756	1.778	1.76	1.756	1.754
5	1.758	1.782	1.784	1.784	1.794	1.756	1.774	1.748	1.746	1.742
6	1.734	1.78	1.802	1.784	1.78	1.742	1.764	1.76	1.74	1.746
7	1.752	1.786	1.796	1.788	1.794	1.752	1.794	1.76	1.74	1.74
8	1.716	1.784	1.776	1.818	1.794	1.74	1.796	1.76	1.754	1.754

DATA Continued

MATING/UNMATING:

	Initial		After 100 Cycles		After Thermal		After Humidity	
Sample#	Mating	Unmating	Mating	Unmating	Mating	Unmating	Mating	Unmating
1	6.09	3.25	5.90	6.10	3.84	2.16	3.86	3.99
2	5.33	3.97	6.45	6.57	3.28	3.02	3.52	3.87
3	5.27	4.60	8.68	8.21	4.41	4.07	3.44	3.65
4	4.99	4.05	5.84	5.59	3.62	2.99	3.56	3.83
5	4.13	3.47	5.36	4.94	2.96	2.98	3.64	3.77
6	6.07	3.11	5.85	5.95	3.72	2.36	3.75	3.57
7	4.40	4.44	6.10	6.25	3.39	3.29	3.74	3.83
8	5.89	3.63	4.90	4.83	4.20	2.14	4.25	3.42
9	6.50	3.54	4.96	5.15	3.62	2.51	4.10	3.08
10	6.11	3.39	5.90	6.08	3.95	2.29	4.54	3.44

INSULATION RESISTANCE (IR):

	Pin-Pin Mated		
SAMPLES	**INITIAL**	**THERMAL**	**HUMIDITY**
1	100,000	100,000	75,000
2	100,000	100,000	75,000

DIELECTRIC WITHSTANDING VOLTAGE (DWV):

	Pin-Pin Mated		
SAMPLES	**INITIAL**	**THERMAL**	**HUMIDITY**
1	2,700	2,450	2,100
2	2,450	2,400	2,100

DATA Continued

LLCR:

45 ° Down

	mOhm values	Actual	Delta	Delta	Delta
Board	Position	Initial	100 Cycles	Thermal	Humidity
1	P1	0.5	0.0	0.3	0.8
1	P2	0.5	0.0	0.2	0.2
1	P3	0.5	0.0	0.1	0.4
1	P4	0.5	0.0	0.2	0.6
1	P5	0.5	0.1	0.1	0.6
1	P6	0.5	0.1	0.2	0.1
1	P7	0.5	0.1	0.2	0.2
1	P8	0.5	0.1	0.1	0.4
2	P1	0.4	0.3	0.1	0.3
2	P2	0.5	0.2	0.2	0.3
2	P3	0.5	0.1	0.1	0.3
2	P4	0.5	0.2	0.3	0.2
2	P5	0.5	0.0	0.0	0.4
2	P6	0.5	0.3	0.2	0.1
2	P7	0.6	0.0	0.1	0.7
2	P8	0.5	0.1	0.1	0.3
3	P1	0.5	0.1	0.1	0.2
3	P2	0.5	0.1	0.0	0.9
3	P3	0.5	0.1	0.1	0.6
3	P4	0.5	0.1	0.1	0.9
3	P5	0.5	0.3	0.1	0.9
3	P6	0.6	0.2	0.3	0.6
3	P7	0.6	0.0	0.2	1.3
3	P8	0.5	0.2	0.1	12.7
4	P1	0.4	0.1	0.1	0.3
4	P2	0.5	0.1	0.1	0.4
4	P3	0.5	0.0	0.0	0.0
4	P4	0.5	0.0	0.0	0.1
4	P5	0.5	0.1	0.0	0.4
4	P6	0.6	0.0	-0.1	0.0
4	P7	0.5	0.0	-0.1	0.2
4	P8	0.5	0.1	0.0	0.5
5	P1	0.5	0.0	0.0	0.4
5	P2	0.5	0.0	0.0	0.2
5	P3	0.5	0.0	0.1	0.2
5	P4	0.5	0.1	0.2	0.2
5	P5	0.5	0.2	0.2	0.2
5	P6	0.6	0.0	0.0	0.1
5	P7	0.5	0.1	0.2	0.1

5	P8	0.6	0.0	0.0	1.1
6	P1	0.5	0.2	0.0	0.8
6	P2	0.5	0.6	0.3	0.7
6	P3	0.6	0.4	0.0	0.5
6	P4	0.6	0.2	0.0	0.5
6	P5	0.5	0.2	0.0	0.1
6	P6	0.5	0.3	0.0	0.3
6	P7	0.6	0.2	0.1	0.2
6	P8	0.5	0.3	0.0	0.3
7	P1	0.5	0.1	0.1	1.1
7	P2	0.5	0.2	0.2	0.8
7	P3	0.5	0.0	0.1	0.6
7	P4	0.5	0.1	0.2	1.0
7	P5	0.6	0.1	0.0	0.3
7	P6	0.5	0.2	0.2	0.4
7	P7	0.5	0.2	0.2	0.8
7	P8	0.6	0.1	0.1	1.3
8	P1	0.6	0.0	0.0	0.5
8	P2	0.6	0.0	0.1	0.3
8	P3	0.5	0.0	0.0	0.1
8	P4	0.5	0.0	0.0	0.0
8	P5	0.6	0.0	0.1	0.2
8	P6	0.6	0.2	0.1	0.1
8	P7	0.5	0.1	0.2	0.6
8	P8	0.5	0.1	0.1	0.3
9	P1	0.5	0.2	0.0	0.2
9	P2	0.5	0.1	0.1	0.1
9	P3	0.5	0.1	0.1	0.1
9	P4	0.5	0.0	0.1	0.4
9	P5	0.5	0.1	0.1	0.2
9	P6	0.6	0.0	0.0	0.1
9	P7	0.6	0.0	0.0	0.6
9	P8	0.6	0.0	0.0	0.2
10	P1	0.5	0.1	0.2	0.7
10	P2	0.5	0.1	0.2	0.7
10	P3	0.6	0.0	0.0	0.1
10	P4	0.5	0.1	0.2	0.2
10	P5	0.5	0.1	0.0	0.1
10	P6	0.5	0.1	0.1	0.2
10	P7	0.5	0.1	0.1	0.1
10	P8	0.5	0.0	0.1	0.0

45 ° Up

Board	mOhm values Position	Actual Initial	Delta 100 Cycles	Delta Thermal	Delta Humidity
1	P1	0.5	0.2	0.1	0.2
1	P2	0.5	0.1	0.1	0.3
1	P3	0.5	0.2	0.1	0.3
1	P4	0.6	0.1	0.0	0.0
1	P5	0.5	0.0	0.0	0.0
1	P6	0.5	0.0	0.4	0.3
1	P7	0.5	0.1	0.1	0.2
1	P8	0.5	0.2	0.0	7.8
2	P1	0.6	0.0	0.1	0.1
2	P2	0.5	0.1	0.3	0.1
2	P3	0.5	0.0	0.1	0.6
2	P4	0.5	0.0	0.1	0.0
2	P5	0.5	0.1	0.1	0.2
2	P6	0.5	0.0	0.1	0.0
2	P7	0.4	0.1	0.1	0.1
2	P8	0.5	0.1	0.2	0.1
3	P1	0.5	0.2	0.1	0.1
3	P2	0.6	0.1	0.0	0.0
3	P3	0.6	0.1	0.0	0.0
3	P4	0.6	0.1	-0.1	0.2
3	P5	0.5	0.1	0.0	0.2
3	P6	0.6	0.1	-0.1	-0.1
3	P7	0.5	0.1	0.0	0.1
3	P8	0.5	0.2	0.0	0.8
4	P1	0.4	0.1	0.2	0.4
4	P2	0.4	0.0	0.1	0.1
4	P3	0.5	0.1	0.3	0.3
4	P4	0.5	0.1	0.1	0.2
4	P5	0.5	0.1	0.2	0.3
4	P6	0.5	0.1	0.8	7.3
4	P7	0.5	0.1	0.1	0.1
4	P8	0.5	0.0	0.1	0.2
5	P1	0.5	0.2	0.1	1.9
5	P2	0.6	0.1	0.0	0.5
5	P3	0.5	0.2	0.1	0.8
5	P4	0.6	0.2	0.2	2.0
5	P5	0.6	0.1	0.0	-0.1
5	P6	0.6	0.2	0.1	0.2
5	P7	0.5	0.2	0.0	0.6
5	P8	0.5	0.3	0.0	0.3
6	P1	0.5	0.1	-0.1	0.2
6	P2	0.5	0.1	0.0	0.1
6	P3	0.5	0.2	0.1	0.2

6	P4	0.5	0.1	0.1	0.1
6	P5	0.6	0.1	0.0	0.2
6	P6	0.5	0.2	0.1	0.2
6	P7	0.6	0.1	0.1	0.6
6	P8	0.6	0.1	0.0	0.7
7	P1	0.5	0.0	-0.1	0.2
7	P2	0.6	-0.1	-0.1	0.0
7	P3	0.5	0.1	0.1	0.0
7	P4	0.5	0.1	0.2	0.4
7	P5	0.5	0.1	0.1	0.4
7	P6	0.5	0.1	0.1	0.5
7	P7	0.5	0.1	0.0	0.2
7	P8	0.5	0.0	0.0	0.6
8	P1	0.6	0.1	0.0	0.7
8	P2	0.5	0.1	0.1	0.0
8	P3	0.5	0.1	0.1	0.0
8	P4	0.5	0.0	0.1	0.0
8	P5	0.5	0.0	0.1	1.4
8	P6	0.5	0.0	0.2	0.3
8	P7	0.5	0.1	0.1	1.6
8	P8	0.5	0.2	0.0	-0.1
9	P1	0.5	0.3	0.1	0.0
9	P2	0.6	0.0	0.0	0.6
9	P3	0.6	0.2	0.0	0.1
9	P4	0.6	0.2	0.0	0.1
9	P5	0.5	0.2	0.0	0.2
9	P6	0.5	0.1	0.1	0.0
9	P7	0.7	-0.1	-0.1	-0.1
9	P8	0.6	0.1	0.0	0.2
10	P1	0.6	0.0	-0.1	0.5
10	P2	0.5	0.0	0.1	1.3
10	P3	0.5	0.0	0.2	0.2
10	P4	0.6	-0.1	0.0	0.1
10	P5	0.5	-0.1	0.1	0.5
10	P6	0.5	0.0	0.2	0.1
10	P7	0.6	-0.1	0.0	0.1
10	P8	0.6	-0.1	0.1	0.4

Perpendicular

	mOhm values	Actual	Delta	Delta	Delta
Board	Position	Initial	100 Cycles	Thermal	Humidity
1	P1	0.5	0.0	0.0	0.3
1	P2	0.5	0.0	0.0	0.2
1	P3	0.5	0.0	0.1	0.3
1	P4	0.5	0.2	0.1	0.7
1	P5	0.5	0.2	0.3	0.2
1	P6	0.5	0.0	0.0	0.2

1	P7	0.5	0.0	0.1	0.1
1	P8	0.6	-0.1	0.0	0.2
2	P1	0.5	0.0	-0.1	0.1
2	P2	0.6	-0.1	-0.1	0.1
2	P3	0.5	0.1	0.0	0.2
2	P4	0.7	-0.1	-0.1	0.1
2	P5	0.5	0.1	0.0	0.1
2	P6	0.5	0.1	-0.1	0.0
2	P7	0.7	-0.1	-0.1	0.0
2	P8	0.4	0.1	0.0	0.1
3	P1	0.6	0.1	-0.1	0.1
3	P2	0.7	-0.1	-0.2	0.0
3	P3	0.7	0.0	0.0	0.0
3	P4	0.6	0.1	0.0	0.1
3	P5	0.7	0.1	0.0	0.1
3	P6	0.6	0.1	0.0	0.0
3	P7	0.5	0.1	0.1	0.2
3	P8	0.8	0.0	0.1	0.1
4	P1	0.5	0.0	0.0	0.2
4	P2	0.5	0.0	0.0	0.2
4	P3	0.7	-0.2	-0.2	0.0
4	P4	0.5	0.0	0.0	0.3
4	P5	0.5	0.0	0.1	0.3
4	P6	0.6	0.1	0.1	0.2
4	P7	0.6	0.0	0.0	0.0
4	P8	0.5	0.2	0.0	0.4
5	P1	0.5	0.2	0.0	0.2
5	P2	0.6	0.1	0.1	0.2
5	P3	0.7	0.6	-0.1	0.2
5	P4	0.6	-0.1	-0.1	0.1
5	P5	0.5	0.2	0.1	0.2
5	P6	0.6	0.0	0.0	0.1
5	P7	0.5	0.2	0.0	0.2
5	P8	0.5	0.1	0.0	0.2
6	P1	0.5	0.0	0.0	0.1
6	P2	0.5	0.1	0.1	0.3
6	P3	0.5	0.1	0.0	0.2
6	P4	0.6	0.0	0.0	0.1
6	P5	0.7	-0.1	0.0	0.0
6	P6	0.6	0.0	0.1	0.3
6	P7	0.6	0.0	0.2	0.2
6	P8	0.5	0.1	0.0	0.2
7	P1	0.5	0.2	0.0	0.6
7	P2	0.5	0.1	0.0	0.2
7	P3	0.8	-0.1	-0.2	-0.1
7	P4	0.6	0.1	-0.1	0.1
7	P5	0.6	0.0	-0.1	0.0
7	P6	0.6	0.0	-0.1	0.0
7	P7	0.6	0.2	-0.1	0.0

7	P8	0.5	0.1	0.0	0.3
8	P1	0.5	0.2	0.1	0.4
8	P2	0.6	0.0	0.0	0.1
8	P3	0.5	0.1	0.4	0.6
8	P4	0.6	0.0	-0.1	0.1
8	P5	0.7	-0.1	-0.2	-0.1
8	P6	0.7	0.0	-0.2	0.1
8	P7	0.6	0.1	-0.1	0.7
8	P8	0.6	0.1	-0.1	0.4
9	P1	0.5	0.1	0.1	0.3
9	P2	0.5	0.0	0.0	0.1
9	P3	0.5	-0.1	0.0	0.3
9	P4	0.5	0.1	0.2	0.1
9	P5	0.5	-0.1	0.1	0.2
9	P6	0.6	0.0	-0.1	0.1
9	P7	0.6	0.0	-0.1	0.1
9	P8	0.5	0.1	0.1	0.2
10	P1	0.5	0.2	0.0	1.1
10	P2	0.6	0.1	0.1	0.4
10	P3	0.5	0.1	0.0	0.3
10	P4	0.5	0.2	0.1	0.7
10	P5	0.5	0.2	0.1	0.2
10	P6	0.8	0.0	-0.2	0.0
10	P7	0.6	0.2	0.2	0.2
10	P8	0.5	0.1	0.0	0.4

Straight

	mOhm values	Actual	Delta	Delta	Delta
Board	Position	Initial	100 Cycles	Thermal	Humidity
1	P1	0.5	0.1	0.1	0.1
1	P2	0.5	0.0	0.1	0.5
1	P3	0.5	0.1	0.1	0.3
1	P4	0.5	0.2	0.3	0.6
1	P5	0.5	0.1	0.3	1.0
1	P6	0.5	0.4	0.3	0.6
1	P7	0.5	0.1	0.0	0.4
1	P8	0.5	0.1	0.2	1.0
2	P1	0.6	0.0	0.0	0.0
2	P2	0.6	-0.1	-0.1	0.1
2	P3	0.8	-0.3	-0.3	-0.2
2	P4	0.5	0.0	0.1	0.0
2	P5	0.5	0.1	0.2	0.1
2	P6	0.5	0.3	0.1	0.2
2	P7	0.6	0.0	0.0	0.2
2	P8	0.5	0.2	0.0	1.0
3	P1	0.5	0.2	0.0	0.5
3	P2	0.5	0.2	0.1	0.5

3	P3	0.6	0.0	0.0	0.2
3	P4	0.5	0.0	0.2	0.2
3	P5	0.6	0.1	0.1	0.6
3	P6	0.5	0.3	0.2	0.4
3	P7	0.5	0.2	0.1	0.1
3	P8	0.5	0.0	0.0	0.2
4	P1	0.6	0.1	-0.1	0.0
4	P2	0.6	0.2	0.0	0.1
4	P3	0.8	0.0	-0.2	-0.2
4	P4	0.5	0.7	0.1	0.3
4	P5	0.5	0.3	0.0	0.2
4	P6	0.5	0.4	0.1	0.3
4	P7	0.5	0.3	0.1	0.3
4	P8	0.5	0.2	0.0	0.4
5	P1	0.5	0.0	0.1	0.2
5	P2	0.6	0.2	0.1	0.4
5	P3	0.5	0.0	0.3	0.4
5	P4	0.4	0.1	0.1	0.2
5	P5	0.4	0.1	0.1	0.2
5	P6	0.5	0.1	0.1	0.1
5	P7	0.5	0.3	0.2	0.5
5	P8	0.5	0.1	0.1	0.7
6	P1	0.6	0.0	0.0	0.1
6	P2	0.6	0.0	0.0	0.1
6	P3	0.6	-0.1	-0.1	0.0
6	P4	0.5	0.2	0.1	0.1
6	P5	0.5	0.1	0.1	0.1
6	P6	0.5	0.3	0.2	0.1
6	P7	0.6	0.4	0.1	0.6
6	P8	0.6	0.2	-0.1	0.3
7	P1	0.7	-0.1	-0.2	0.0
7	P2	0.5	0.0	0.0	0.1
7	P3	0.6	0.0	-0.1	0.0
7	P4	0.5	0.2	0.2	0.3
7	P5	0.5	0.2	0.1	0.2
7	P6	0.5	0.6	0.3	0.3
7	P7	0.5	0.1	0.4	0.8
7	P8	0.4	0.2	0.2	0.8
8	P1	0.5	0.0	0.0	0.5
8	P2	0.5	0.0	0.1	0.4
8	P3	0.6	0.1	0.0	0.0
8	P4	0.5	0.1	0.2	0.1
8	P5	0.5	0.1	0.0	0.2
8	P6	0.4	0.2	0.1	0.3
8	P7	0.5	0.2	0.1	0.4
8	P8	0.5	0.3	0.1	0.2
9	P1	0.6	0.0	0.0	0.0
9	P2	0.7	0.0	-0.2	0.0
9	P3	0.6	0.5	0.0	0.5

9	P4	0.5	0.1	0.1	0.3
9	P5	0.6	0.1	0.0	0.1
9	P6	0.6	0.4	0.1	0.2
9	P7	0.7	-0.1	0.0	0.4
9	P8	0.6	-0.1	0.0	0.3
10	P1	0.4	0.0	0.0	0.7
10	P2	0.5	0.0	0.0	0.2
10	P3	0.5	0.0	0.0	0.2
10	P4	0.6	0.0	-0.1	0.0
10	P5	0.6	0.0	-0.1	0.4
10	P6	0.6	0.2	0.2	0.2
10	P7	0.5	0.0	0.0	0.1
10	P8	0.5	0.0	0.0	1.7

EQUIPMENT AND CALIBRATION SCHEDULES

Equipment #: TCT-04
Description: Dillon Quantrol TC21 25-1000 mm/min series test stand
Manufacturer: Dillon Quantrol
Model: TC2 I series test stand
Serial #: 04-1041-04
Accuracy: Speed Accuracy: +/- 5% of indicated speed; Speed Accuracy: +/- 5% of indicated speed;
… Last Cal: 05/18/2007, Next Cal: 05/18/2008

Equipment #: HPM-01
Description: Hipot Megommeter
Manufacturer: Hipotronics
Model: H306B-A
Serial #: M9905004
Accuracy: 2 % Full Scale Accuracy
… Last Cal: 06/22/07, Next Cal: 06/22/08

Equipment #: STG-01
Description: Hipot Megomter Safety Test Cage
Manufacturer: Hipotronics
Model: TC-25
Serial #: M9910141
Accuracy: N/A
… Last Cal: No Calibration Required, Next Cal:

Equipment #: MO-01
Description: Micro-Ohmeter
Manufacturer: Keithley
Model: 580
Serial #: 0772740
Accuracy: See Manual
… Last Cal: 06/22/07, Next Cal: 06/22/08

Equipment #: MO-03
Description: Multimeter /Data Acquisition System
Manufacturer: Keithley
Model: 2700
Serial #: 0791975
Accuracy: See Manual
… Last Cal: 06/22/07, Next Cal: 06/22/08

Equipment #: MO-06
Description: Micro-Ohmeter
Manufacturer: Keithley
Model: 580
Serial #: 1110525
Accuracy: See Manual
… Last Cal: 06/22/2007, Next Cal: 06/22/2008

Equipment #: MO-07
Description: Multimeter / Data Acquistion System
Manufacturer: Keithley
Model: 2700
Serial #: 1116559
Accuracy: See Manual See Manual
… Last Cal: 6/22/2007, Next Cal: 6/22/2008

Equipment #: MV-3
Description: 6"x6" Video Measuring Machine
Manufacturer: Micro-Vu
Model: M301
Serial #: V6815
Accuracy: See Manual - MOVED TO PRODUCTION
… Last Cal: 03/15/05, Next Cal: 04/01/2099

Equipment #: MV-05
Description: 6" x 6" Video Measuring Machine
Manufacturer: Micro-Vu
Model: M3010838
Serial #: V9344
Accuracy: See Manual
… Last Cal: 02/05/2007, Next Cal: 02/05/2008

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
… Last Cal: 06/62/07, Next Cal: 06/22/08

Equipment #: THC-04
Description: Temperature/Humidity Chamber
Manufacturer: Thermotron
Model: SM-8-3800
Serial #: 04-1041-04
Accuracy: See Manual
… Last Cal: 09/21/2007, Next Cal: 09/21/2008

Equipment #: Null
Description:
Manufacturer:
Model:
Serial #:
Accuracy:
… Last Cal: , Next Cal: