Project Number:	Tracking Code: TC0415--0415		
Requested by: Jeremy Wooldridge	Date: 4/9/2004	Product Rev: A	
Part #: MODS-C-8P8C-E-S	Lot #: 1	Tech: Troy Cook	Eng: John Tozier
Part description: Single Mod Jack			Qty to test: 1
Test Start: 05/03/2004	Test Completed: 6/9/2004		

DVT

PART DESCRIPTION

MODS-C-8P8C-E-S

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

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: Mate with TM8P-88P

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
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) The ultrasonic procedure can be used with either aqueous or non-aqueous soldering components and follows:
   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.
7) Parts not intended for testing LLCR and DWV/IR are visually inspected and cleaned if necessary.
8) Any additional preparation will be noted in the individual test procedures.
9) Solder Information: TM8P-88P
10) Re-Flow Time/Temp:
11) Internal Test PCBs used:

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Part description: Single Mod Jack	

FLOWCHARTS

TEST STEP	GROUP A 1 min All Contacts
01	CCC

Tabulate calculated current at RT, 55° C, 65° C and 75° C after derating 20% and based on 85 ° C

CCC, Temp rise = EIA-364-70

TEST STEP	GROUP A1 10 Connectors	GROUP A2 10 Connectors	GROUP B1 Individual Contacts Ambient	GROUP B2 Individual Contacts Thermal (Mated)
01	Mating / Unmating	Mating / Unmating	Setup Approve	Setup Approve
02	Data Review	Data Review	Normal Force	Thermal (Mated)
03	250 Cycles	500 Cycles	Data Review	Normal Force
04	Mating / Unmating	Mating / Unmating		
05	Data Review	Data Review		
06	Thermal Aging (Mated)	Thermal Aging (Mated)		
07	Mating / Unmating	Mating / Unmating		
08	Data Review	Data Review		
09	Humidity (Mated)	Humidity (Mated)		
10	Mating / Unmating	Mating / Unmating		

Thermal = EIA-364-17, Test Condition 3, 85 deg C; Time Condition 'A' (96 hours)

Humidity =EIA-364-31, Test Condition 'A' (96 Hours) and Method II but at 65° C @ 90%RH to 98% RH

Mating/Un-Mating Forces = EIA-364-13

Normal Force = EIA-364-04

FLOWCHARTS Continued

TEST STEP	GROUP A1 Ambient	GROUP B1 Ambient	GROUP B2 Thermal	GROUP B3 Humidity
01	IR	DWV/Working Voltage	Thermal	Humidity
02	Data Review		DWV/Working Voltage	DWV/Working Voltage
03	Thermal			
04	IR			
05	Data Review			
06	Humidity			
07	IR			

Thermal = EIA-364-17, Test Condition 3, 85 deg C;
Time Condition 'A' (96 hours)
Humidity =EIA-364-31, Test Condition 'A' 96 Hours)
and Method II but at 65° C @ 90%RH to 98% RH
IR = EIA-364-21. Greater than 100 Meg Ohms
DWV = EIA-364-20 at 900 VAC 500 V/Sec rate.
Greater than 100 Volts

TEST STEP	GROUP A1 5 - 10 connectors	GROUP A2 5 - 10 connectors
01	LLCR-1	LLCR-1
02	Data Review	Data Review
03	250 Cycles	500 Cycles
04	LLCR-2	LLCR-2
05	Data Review	Data Review
06	Thermal	Thermal
07	LLCR-3	LLCR-3
08	Data Review	Data Review
09	Humidity	Humidity
10	LLCR-4	LLCR-4

Thermal = EIA-364-17, Test Condition 3, 85 deg C;
Time Condition 'A' (96 hours)
Humidity =EIA-364-31, Test Condition 'A' 96 Hours)
and Method II but at 65° C @ 90%RH to 98% RH
LLCR = EIA-364-23, LLCR
use Keithley 580 in the dry circuit mode, 10 mA Max

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

FLOWCHARTS Continued

TEST STEP	GROUP A1 Individual Contacts (30) min	GROUP B1 Individual Contacts (30) min
01	**Setup Approve**	**Setup Approve**
02	Capacitance	Thermal Aging (Mated)
03	Data Review	Capacitance

Thermal = EIA-364-17, Test Condition 3, 85 deg C;
Time Condition 'A' (96 hours)
Capacitance at 820 Hz, B&K 810C

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

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 3 at 85° C.
   b) Test Time Condition A for 96 hours.
2) Connectors are mated.

CYCLIC HUMIDITY:

1) Reference document: EIA-364-31, *Humidity Test Procedure for Electrical Connectors.*
   a) Test Condition A, 96 Hours.
   b) Method III, but at + 65° C, 90% to 98% Relative Humidity.
2) Connectors are mated and pre-conditioned at ambient.

TEMPERATURE RISE (Current Carrying Capacity, CCC):

1) EIA-364-70, *Temperature Rise versus Current Test Procedure for Electrical Connectors and Sockets*.
2) When current passes through a contact, the temperature of the contact increases as a result of I^2R (resistive) heating.
3) The number of contacts being investigated plays a significant part in power dissipation and therefore temperature rise.
4) The size of the temperature probe can affect the measured temperature.
5) Copper traces on PC boards will contribute to temperature rise:
   a) Self heating (resistive)
   b) Reduction in heat sink capacity affecting the heated contacts
6) A de-rating curve, usually 20%, is calculated.
7) Calculated de-rated currents at three temperature points are reported:
   a) Ambient
   b) $55\ ^{o}$ C
   c) $56\ ^{o}$ C
   d) $75\ ^{o}$ C
8) Typically, neighboring contacts (in close proximity to maximize heat build up) are energized.
9) The thermocouple (or temperature measuring probe) will be positioned at a location to sense the MAXIMUM temperature in the vicinity of the heat generation area.
10) A computer program, *TR 803.exe*, ensures accurate stability for data acquisition.
11) Hook-up wire cross section is larger than the cross section of any connector leads/PC board traces, jumpers, etc.
12) Hook-up wire length is longer than the minimum specified in the referencing standard.

ATTRIBUTE DEFINITION Continued

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.

NORMAL FORCE (FOR CONTACTS TESTED IN THE HOUSING):

1) Reference document: EIA-364-04, *Normal Force Test Procedure for Electrical Connectors*.
2) The contacts shall be tested in the connector housing.
3) If necessary, a "window" shall be made in the connector body to allow a probe to engage and deflect the contact at the same attitude and distance (plus 0.05 mm [0.002"]) as would occur in actual use.
4) The connector housing shall be placed in a holding fixture that does not interfere with or otherwise influence the contact force or deflection.
5) Said holding fixture shall be mounted on a floating, adjustable, X-Y table on the base of the Dillon TC^2, computer controlled test stand with a deflection measurement system accuracy of 5.0 µm (0.0002").
6) The nominal deflection rate shall be 5 mm (0.2")/minute.
7) Unless otherwise noted a minimum of five contacts shall be tested.
8) The force/deflection characteristic to load and unload each contact shall be repeated five times.
9) The system shall utilize the TC^2 software in order to acquire and record the test data.
10) The permanent set of each contact shall be measured within the TC^2 software.
11) The acquired data shall be graphed with the deflection data on the X-axis and the force data on the Y-axis and a print out will be stored with the Tracking Code paperwork.

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
      ii) Mated and Unmated
      iii) Unmounted
      iv) Rate of Application 500 V/Sec
      v) 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).

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

ATTRIBUTE DEFINITION Continued

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
      ii) Mated and Unmated
      iii) Unmounted
      iv) Electrification Time 2.0 minutes
      v) Test Voltage (VDC) corresponding to calibration settings for measuring resistances
2) MEASUREMENTS:
   a) When the specified test voltage is applied (VDC), the insulation resistance shall not be less than 5000 megohms.

PIN-PIN CAPACITANCE:

To determine the capacitance between adjacent sockets … usually measures in PicoFarads (pF).

3) PROCEDURE:
   a) Typical hand-held equipment for this purpose are optional accessories in Electrical Maintenance and Repair Field Service tool kits
   b) Test Conditions:
      i) Between Adjacent and Diagonal Contacts
      ii) Unmated
      iii) Unmounted
4) MEASUREMENT:
   a) Measuring instrument is ‘zeroed’ prior to performing measurement.

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

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

RESULTS

Temperature Rise, CCC

- **At 55°C, relative to 85°C ----------1.7 A at 20% de-rated with all conductors powered**

Mating – Unmating Forces – 250 Cycle Group

- **Initial**
  - **Mating**
    - **Min ---------- 4.0 lbs**
    - **Max---------- 5.3 lbs**
  - **Unmating**
    - **Min ---------- 1.4 lbs**
    - **Max---------- 3.3 lbs**
- **After 250 Cycles**
  - **Mating**
    - **Min ---------- 4.4 lbs**
    - **Max---------- 4.9 lbs**
  - **Unmating**
    - **Min ---------- 1.8 lbs**
    - **Max---------- 2.9 lbs**
- **After Thermal Cycles**
  - **Mating**
    - **Min ---------- 2.5 lbs**
    - **Max---------- 3.2 lbs**
  - **Unmating**
    - **Min ---------- 0.5 lbs**
    - **Max---------- 2.2 lbs**
- **After Humidity Cycles**
  - **Mating**
    - **Min ---------- 2.4 lbs**
    - **Max---------- 3.1 lbs**
  - **Unmating**
    - **Min ---------- 0.4 lbs**
    - **Max---------- 1.0 lbs**

Mating – Unmating Forces – 500 Cycle Group

- **Initial**
  - **Mating**
    - **Min ---------- 4.4 lbs**
    - **Max---------- 5.7 lbs**
  - **Unmating**
    - **Min ---------- 1.9 lbs**
    - **Max---------- 3.7 lbs**
- **After 500 Cycles**
  - **Mating**
    - **Min ---------- 4.2 lbs**
    - **Max---------- 5.4 lbs**
  - **Unmating**
    - **Min ---------- 1.9 lbs**
    - **Max---------- 3.1 lbs**
- **After Thermal Cycles**
  - **Mating**
    - **Min ---------- 2.3 lbs**
    - **Max---------- 2.7 lbs**

- **Unmating**
  - **Min ---------- 0.2 lbs**
  - **Max---------- 0.8 lbs**

- **After Humidity Cycles**
  - **Mating**
    - **Min ---------- 2.4 lbs**
    - **Max---------- 2.8 lbs**
  - **Unmating**
    - **Min ---------- 0.4 lbs**
    - **Max---------- 0.9 lbs**

Normal Force at 0.048" deflection

- **Initial**
  - **Min----------81.40 gr Set ----- 0.0000"**
  - **Max ----------92.60 gr Set ----- 0.0025"**
- **Thermal**
  - **Min----------95.22 gr**
  - **Max ---------- 112.90 gr**

Dielectric Withstanding Voltage, DWV, minimums, UN-mated,

- **Initial---------- ----------Pass greater than 1000 VAC**
  - **Breakdown ---------- 1900 VAC**
  - **DWV---------- 1425 VAC------Pass**
  - **Working voltage----------475 VAC**
- **Thermal**
  - **Breakdown ---------- 1800 VAC**
  - **DWV---------- 1350 VAC**
  - **Working voltage----------450 VAC**
- **Humidity**
  - **Breakdown ---------- 1900 VAC**
  - **DWV---------- 1425 VAC**
  - **Working voltage----------475 VAC**

Insulation Resistance minimums, IR, UN-mated, Pass greater than 5000 Meg Ω

- **Initial----------100,000 Meg Ω ----------Pass**
- **Thermal---------- 50,000 Meg Ω**
- **Humidity----------100,000 Meg Ω**

Capacitance Pin-Pin

- **Initial**
  - **Min----------0.7 pF**
  - **Max ----------1.4 pF**
- **Thermal**
  - **Min----------0.5 pF**
  - **Max ----------1.5 pF**

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

LLCR Durability (96 LLCR test points)

- **Initial ---------- 31.5 mOhms Max**
- **Durability, 250 Cycles**
  - **<= +5.0 mOhms ---------- 96 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 ---------- 94 Points ---------- Stable**
  - **+5.1 to +10.0 mOhms ----------1 Points ---------- Minor**
  - **+10.1 to +15.0 mOhms ----------0 Points ---------- Acceptable**
  - **+15.1 to +50.0 mOhms ----------1 Points ---------- Marginal**
  - **+50.1 to +2000 mOhms----------0 Points ---------- Unstable**
  - **>+2000 mOhms----------0 Points ---------- Open Failure**

- **Humidity**
  - **<= +5.0 mOhms ---------- 92 Points ---------- Stable**
  - **+5.1 to +10.0 mOhms ----------4 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 (96 LLCR test points)

- **Initial ---------- 30.9 mOhms Max**
- **Durability, 500 Cycles**
  - **<= +5.0 mOhms ---------- 94 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**
- **Thermal**
  - **<= +5.0 mOhms ---------- 86 Points ---------- Stable**
  - **+5.1 to +10.0 mOhms ----------8 Points ---------- Minor**
  - **+10.1 to +15.0 mOhms ----------2 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**

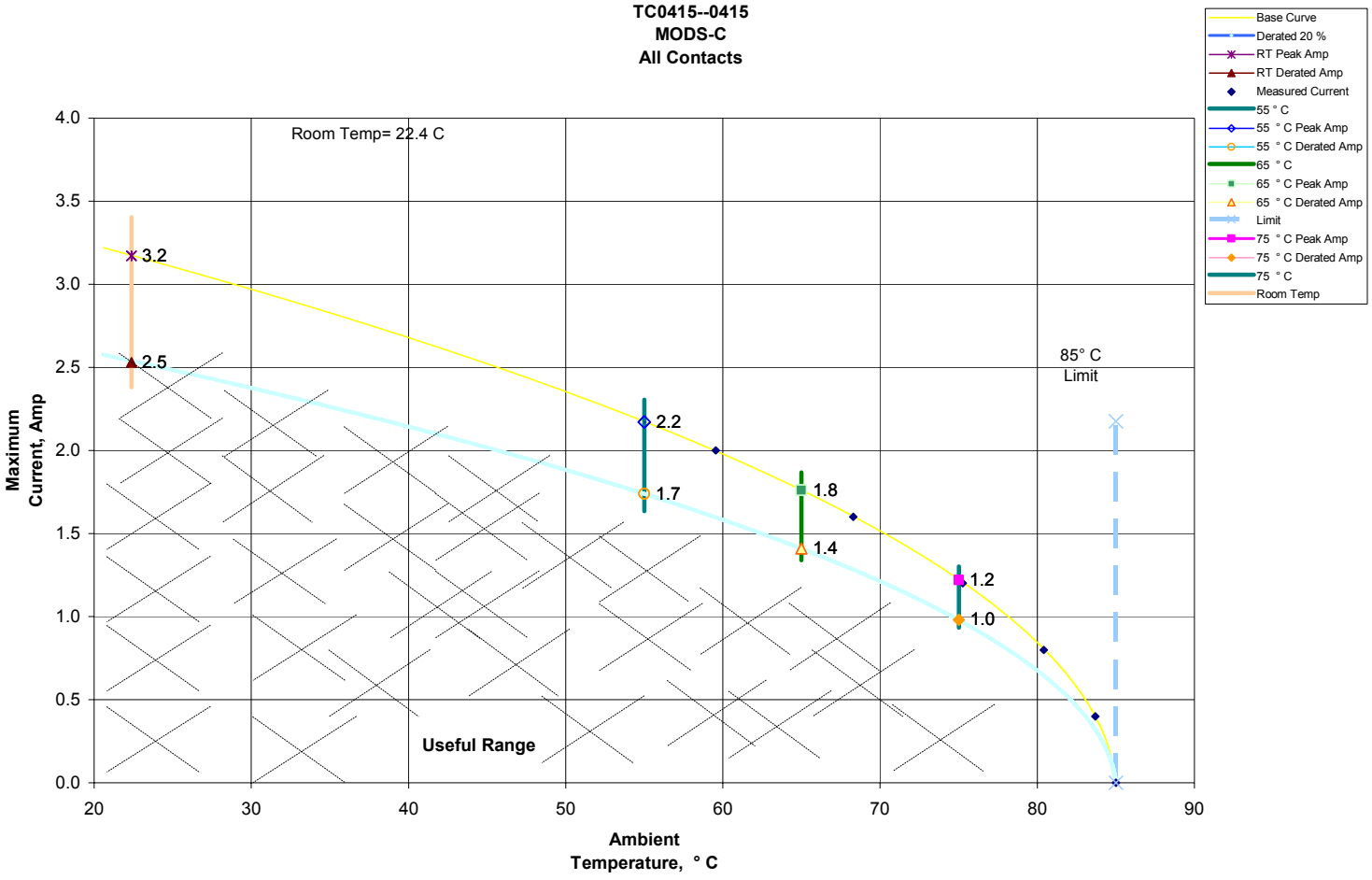
- **Humidity**
  - **<= +5.0 mOhms ---------- 58 Points ---------- Stable**
  - **+5.1 to +10.0 mOhms ---------- 27 Points ---------- Minor**
  - **+10.1 to +15.0 mOhms ----------9 Points ---------- Acceptable**
  - **+15.1 to +50.0 mOhms ----------2 Points ---------- Marginal**
  - **+50.1 to +2000 mOhms----------0 Points ---------- Unstable**
  - **>+2000 mOhms----------0 Points ---------- Open Failure**

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA SUMMARIES

TEMPERATURE RISE (Current Carrying Capacity, CCC):

1) High quality thermocouples whose temperature slopes track one another were used for temperature monitoring.
2) The thermocouples were placed at a location to sense the MAXIMUM temperature generated during testing.
3) Temperature readings recorded are those for which three successive readings, 15 minutes apart, differ less than 1° C (computer controlled data acquisition).
4) All contacts were powered:
   a) Clustered configuration



Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA SUMMARIES Continued

MATING/UNMATING – 250 Cycle Group:

	Initial				After 250 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)
Minimum	63.2	4.0	21.6	1.4	69.6	4.4	28.6	1.8
Maximum	*84.0*	*5.3*	*52.2*	*3.3*	*78.6*	*4.9*	*46.4*	*2.9*
Average	***77.3***	***4.8***	***37.2***	***2.3***	***74.8***	***4.7***	***35.9***	***2.2***
	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	39.7	2.5	7.4	0.5	38.6	2.4	6.2	0.4
Maximum	*51.7*	*3.2*	*34.7*	*2.2*	*49.3*	*3.1*	*16.0*	*1.0*
Average	***45.4***	***2.8***	***16.1***	***1.0***	***45.0***	***2.8***	***12.0***	***0.8***

MATING/UNMATING – 500 Cycle Group:

	Initial				After 500 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)
Minimum	69.6	4.4	30.2	1.9	67.8	4.2	30.2	1.9
Maximum	*91.4*	*5.7*	*59.8*	*3.7*	*86.7*	*5.4*	*49.3*	*3.1*
Average	***81.5***	***5.1***	***44.5***	***2.8***	***77.1***	***4.8***	***40.4***	***2.5***

	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	36.0	2.3	2.7	0.2	39.0	2.4	6.7	0.4
Maximum	*42.4*	*2.7*	*13.0*	*0.8*	*44.5*	*2.8*	*14.4*	*0.9*
Average	***39.4***	***2.5***	***8.7***	***0.5***	***41.3***	***2.6***	***10.3***	***0.6***

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Part description: Single Mod Jack	

DATA SUMMARIES Continued

NORMAL FORCE (FOR CONTACTS TESTED IN THE HOUSING):

1) Calibrated force gauges were used along with computer controlled positioning equipment.
2) Typically, 8-10 readings were taken and the averages reported.

Initial	Deflections in inches Forces in Grams					
	0.006	**0.012**	**0.024**	**0.036**	**0.048**	**SET**
Averages	6.38	14.56	33.43	56.81	87.60	0.0016
Min	5.67	13.13	31.64	53.13	81.40	0.0000
Max	6.87	15.22	35.22	62.06	92.60	0.0025
St. Dev	0.46	0.73	1.54	3.42	4.47	0.0008

Thermal	Deflections in inches, Forces in Grams				
	0.006	**0.012**	**0.024**	**0.036**	**0.048**
Averages	11.91	25.01	52.07	78.14	103.94
Min	11.16	24.00	48.72	73.55	95.22
Max	12.54	27.16	56.66	85.76	112.90
St. Dev	0.54	1.17	3.10	5.25	7.05

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Part description: Single Mod Jack	

DATA SUMMARIES Continued

DIELECTRIC WITHSTANDING VOLTAGE (DWV):

Voltage Rate ***500 VAC Per Sec.***

Test Voltage ***Until Breakdown Occurs***

	Initial, VAC Unmated		
	Breakdown Voltage	**DWV**	**Working Voltage**
Average	1950	1463	488
Min	1900	1425	475
Max	2000	1500	500
	Thermal VAC Unmated		
	Breakdown Voltage	**DWV**	**Working Voltage**
Average	1800	1350	450
Min	1800	1350	450
Max	1800	1350	450
	InitiHumidityal, VAC Unmated		
	Breakdown Voltage	**DWV**	**Working Voltage**
Average	1900	1425	475
Min	1900	1425	475
Max	1900	1425	475

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Part description: Single Mod Jack	

DATA SUMMARIES Continued

INSULATION RESISTANCE (IR):

Electrification Time ***Two (2) minutes***

Initial, Meg Ohms	
	Unmated
	Insulation Resistance
Average	100000
Min	100000
Max	100000
Thermal Meg Ohms	
	Unmated
	Insulation Resistance
Average	50000
Min	50000
Max	50000
Humidity Meg Ohms	
	Unmated
	Insulation Resistance
Average	100000
Min	100000
Max	100000

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Part description: Single Mod Jack	

DATA SUMMARIES Continued

PIN-PIN CAPACITANCE:

Initial	Pin - Pin
	pF
Averages	1.15
Min	0.70
Max	1.40
St. Dev	0.31
Count	4
Thermal	**Pin - Pin**
	pF
Averages	0.95
Min	0.50
Max	1.50
St. Dev	0.48
Count	4

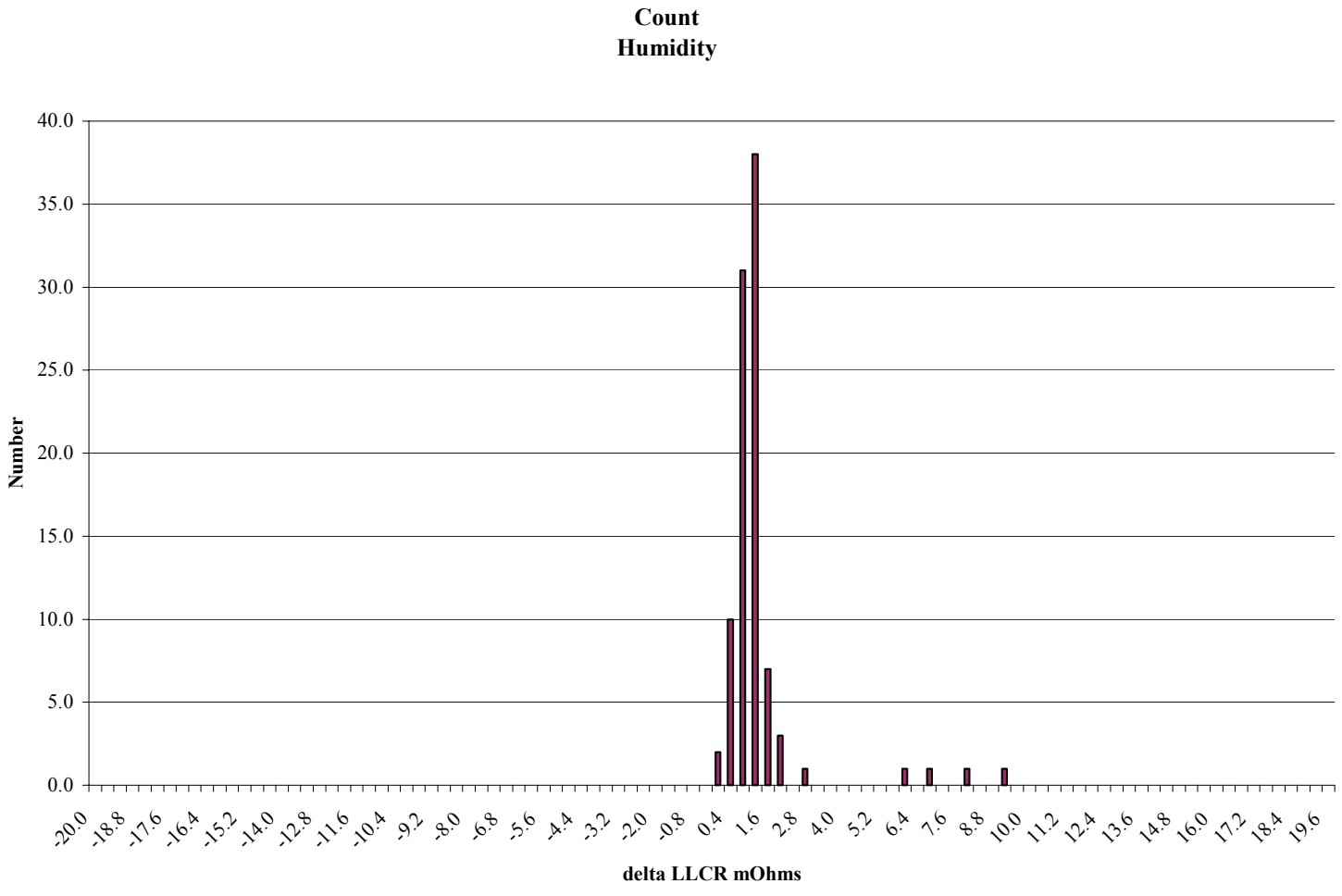
Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA SUMMARIES Continued

LLCR – 250 Cycle Group:

1) A total of 74 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

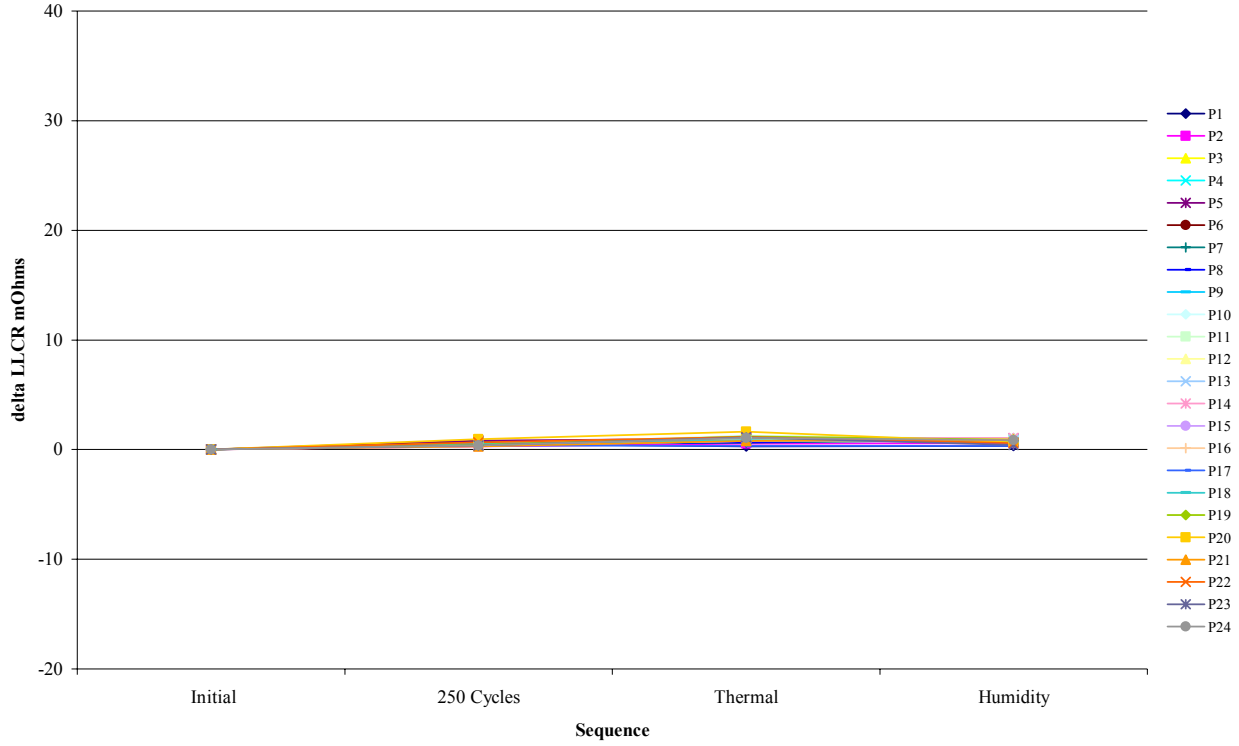
mOhm values	Actual Initial	Delta 250 Cycles	Delta Thermal	Delta Humidity
Average	29.5	0.4	1.1	1.1
St. Dev.	1.4	0.3	2.1	1.4
Min	23.8	-0.1	0.0	0.0
Max	31.5	1.4	20.2	9.2
Count	96	96	96	96



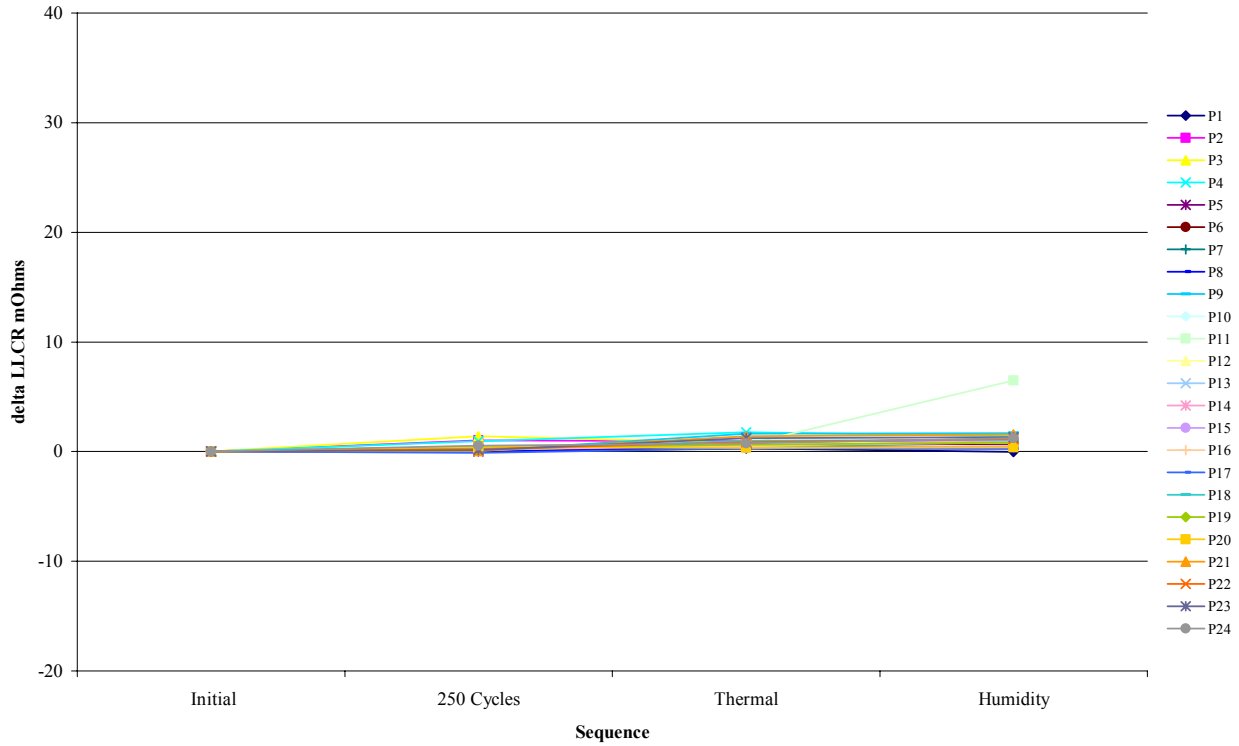
Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA SUMMARIES Continued

Set #1



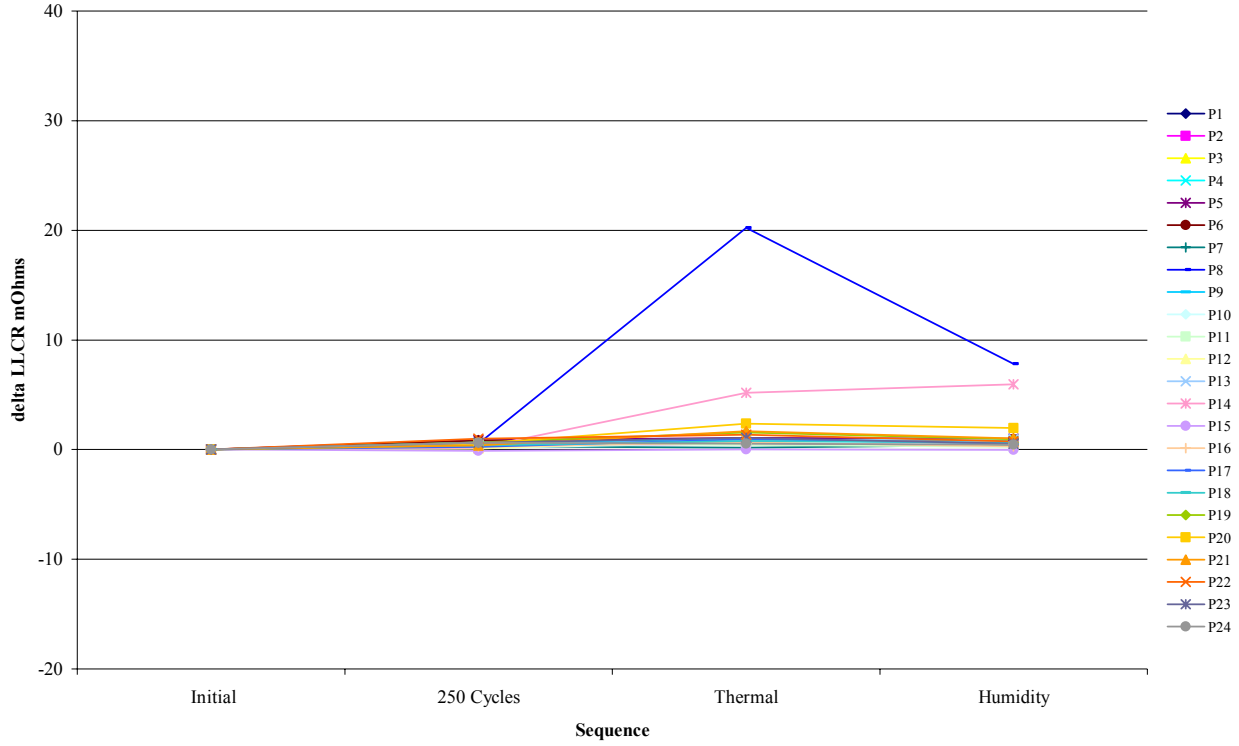
Set #2



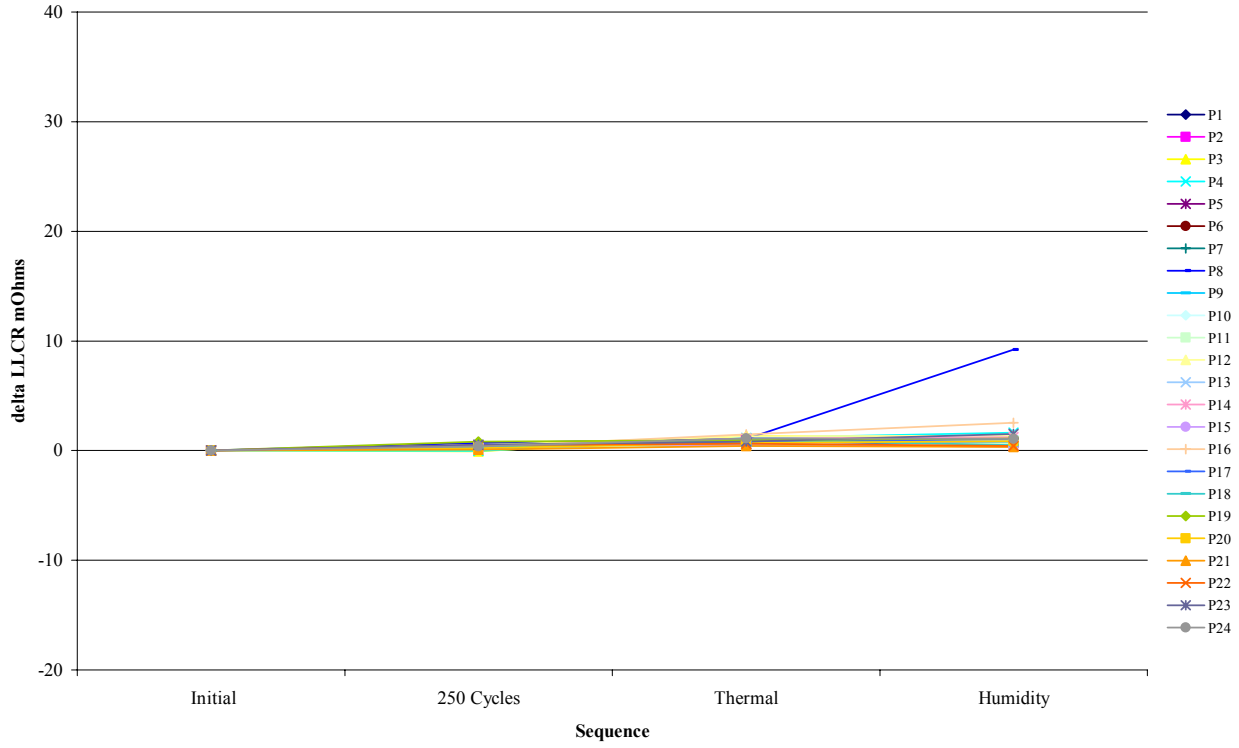
Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA SUMMARIES Continued

Set #3



Set #4



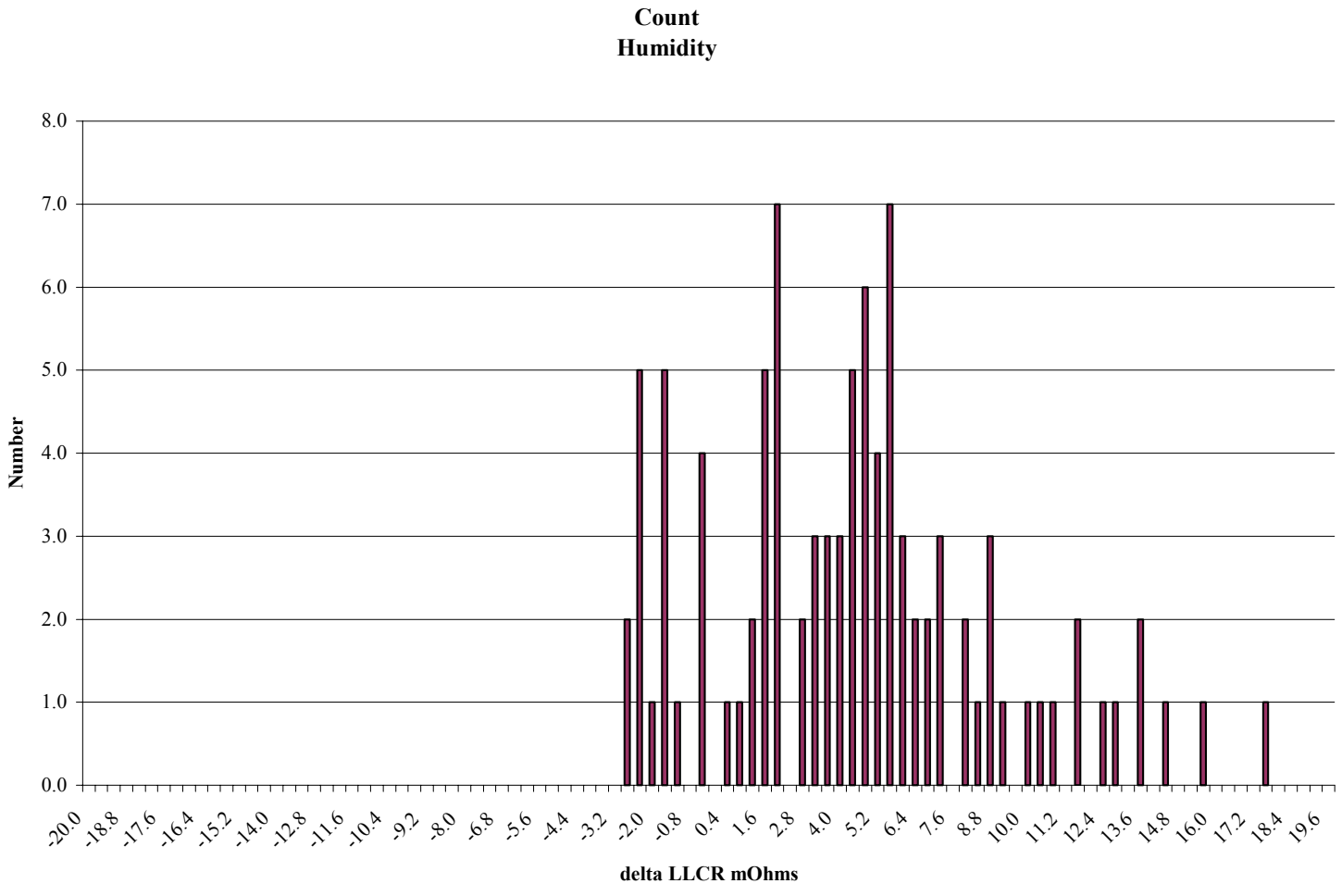
Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA SUMMARIES Continued

LLCR – 500 Cycle Group:

1) A total of 74 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

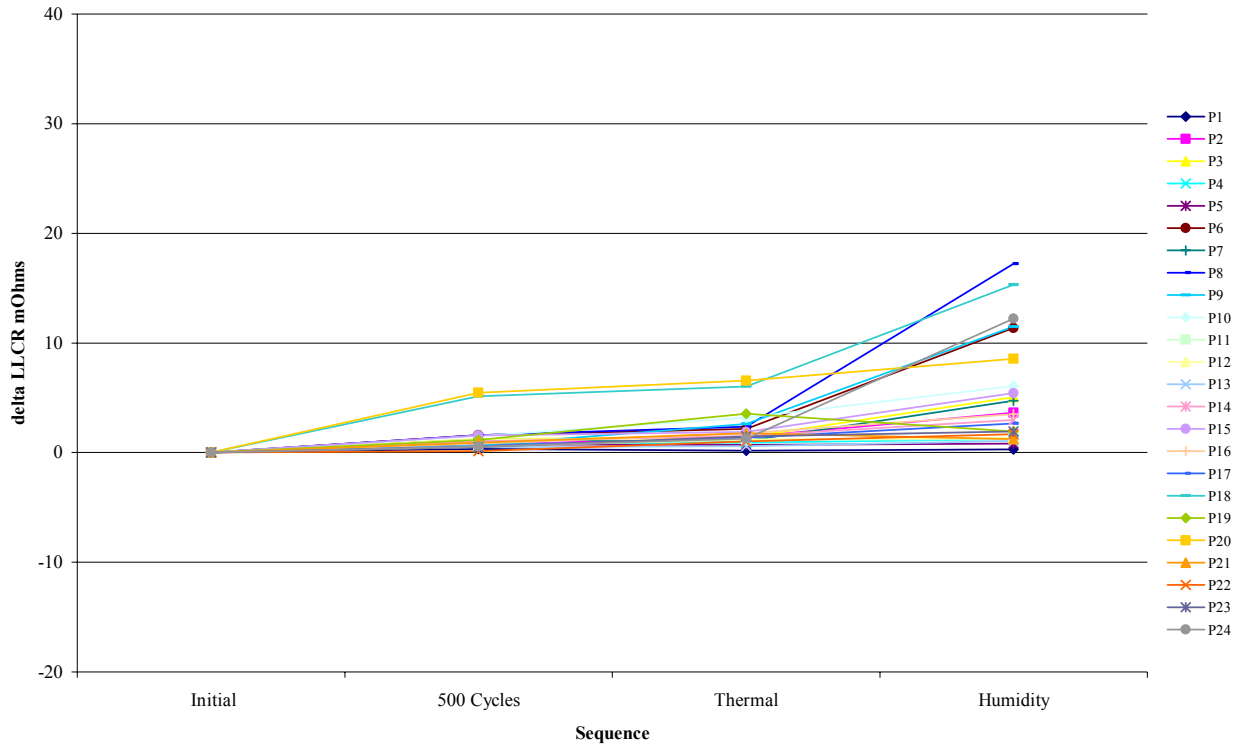
mOhm values	Actual Initial	Delta 500 Cycles	Delta Thermal	Delta Humidity
Average	27.2	0.7	2.0	4.2
St. Dev.	3.4	2.3	3.0	4.5
Min	12.4	-3.5	-3.3	-3.0
Max	30.9	5.5	11.6	17.2
Count	96	96	96	96



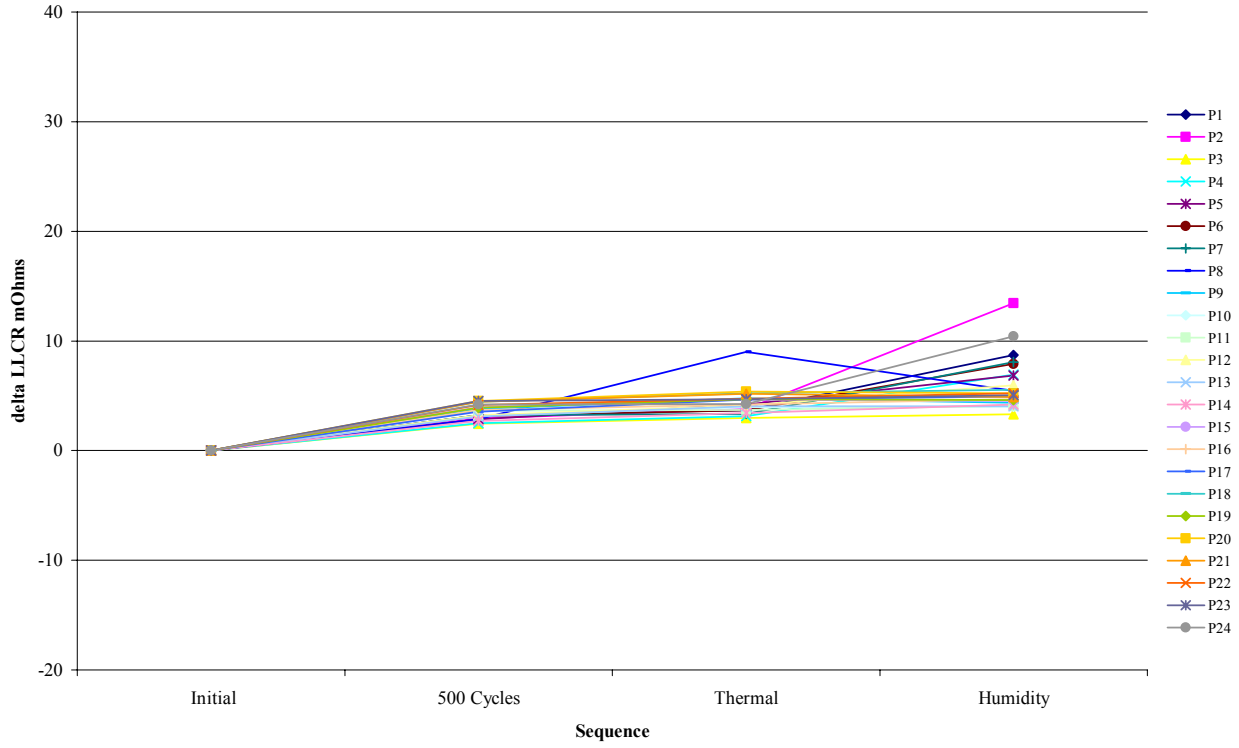
Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA SUMMARIES Continued

Set #1



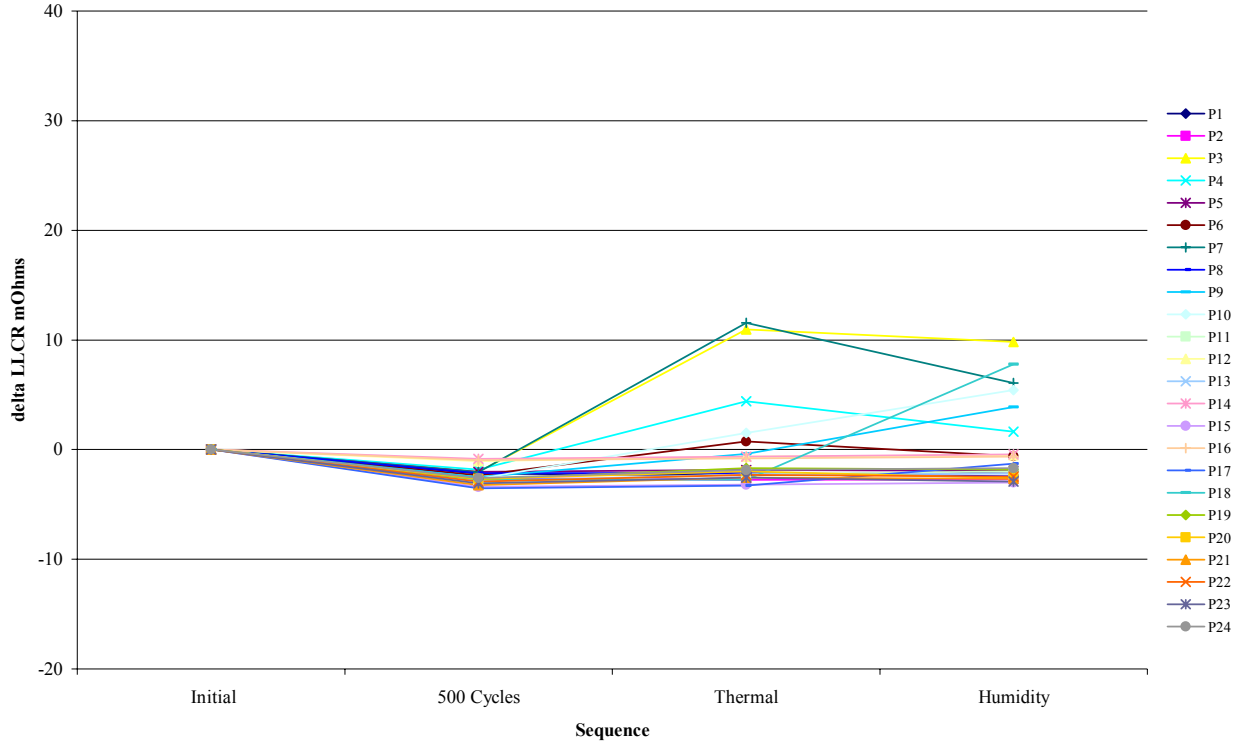
Set #2



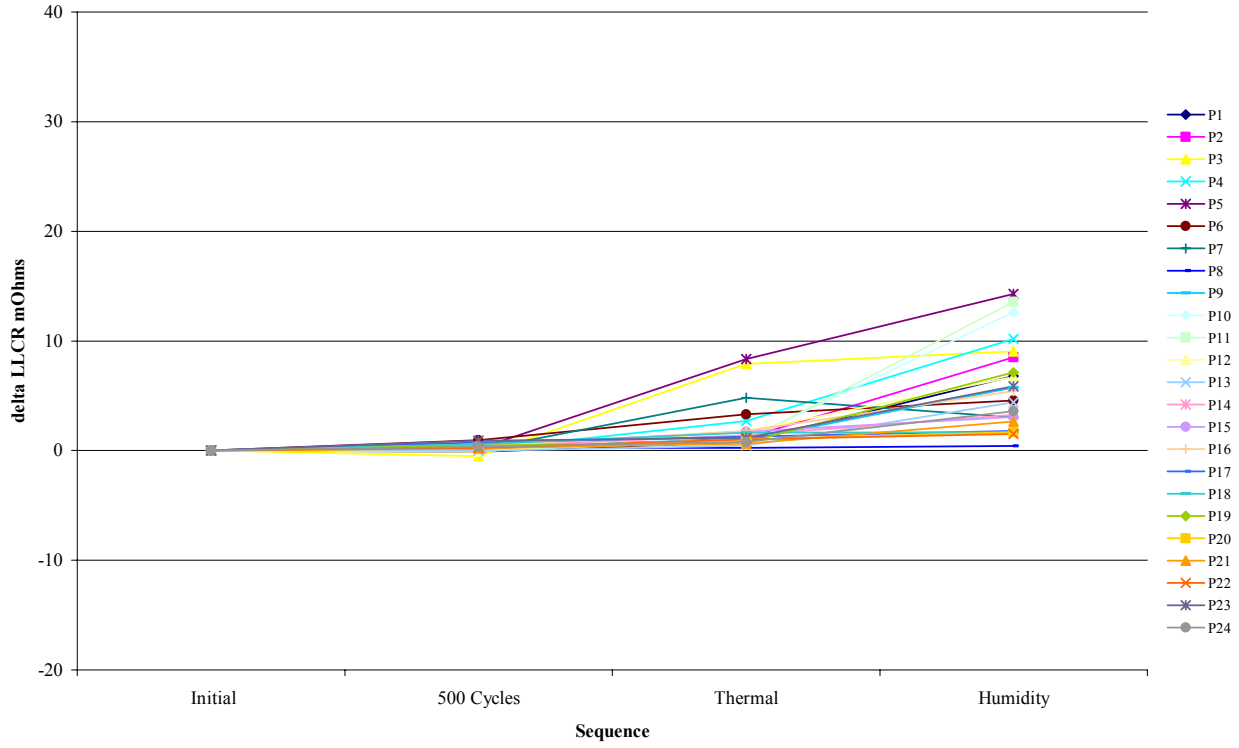
Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA SUMMARIES Continued

Set #3



Set #4



Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA

MATING/UNMATING – 250 Cycle Group:

Test Date:	5/11/2004
Operator:	Troy Cook
Temperature (C):	23
Humidity (RH):	41%
Equipment ID:	TCT-03
Load Cell ID:	LC-2500N(icell)
Part #	MODS-C

	Initial				After 250 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
Sample#	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)
1	63.2	3.95	21.6	1.35	73.4	4.59	28.6	1.79
2	71.7	4.48	28.3	1.77	72.8	4.55	33.0	2.06
3	66.1	4.13	23.8	1.49	77.4	4.84	33.0	2.06
4	82.7	5.17	34.7	2.17	77.8	4.86	41.0	2.56
5	80.0	5.00	35.5	2.22	78.6	4.91	36.2	2.26
6	84.0	5.25	43.8	2.74	69.6	4.35	30.6	1.91
7	83.7	5.23	51.7	3.23	70.9	4.43	40.6	2.54
8	84.0	5.25	42.7	2.67	75.0	4.69	46.4	2.90
9	80.2	5.01	52.2	3.26	77.3	4.83	33.8	2.11

Test Date:	5/18/2004
Operator:	Troy Cook
Temperature (C):	23
Humidity (RH):	57%
Equipment ID:	TCT-03
Load Cell ID:	LC-2500N(icell)

Test Date:	6/8/2004
Operator:	Troy Cook
Temperature (C):	22
Humidity (RH):	49%
Equipment ID:	TCT-03
Load Cell ID:	LC-2500N(icell)

	After Thermal				After Humidity			
	Mating		**Unmating**		**Mating**		**Unmating**	
Sample#	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)
1	46.1	2.88	15.2	0.95	42.9	2.68	11.2	0.70
2	49.0	3.06	18.9	1.18	48.2	3.01	15.7	0.98
3	45.9	2.87	18.7	1.17	46.9	2.93	14.6	0.91
4	51.7	3.23	34.7	2.17	49.3	3.08	16.0	1.00
5	47.5	2.97	18.9	1.18	46.9	2.93	14.7	0.92
6	42.9	2.68	10.7	0.67	38.6	2.41	9.3	0.58
7	41.9	2.62	7.4	0.46	38.6	2.41	6.2	0.39
8	39.7	2.48	11.0	0.69	48.3	3.02	13.0	0.81
9	43.7	2.73	9.3	0.58	45.3	2.83	7.4	0.46

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA Continued

MATING/UNMATING – 500 Cycle Group:

Test Date:	5/11/2004
Operator:	Troy Cook
Temperature (C):	23
Humidity (RH):	41%
Equipment ID:	TCT-03
Load Cell ID:	LC-2500N(icell)
Part #	MODS-C

	Initial				After 500 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
Sample#	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)
1	69.6	4.35	30.2	1.89	67.8	4.24	30.2	1.89
2	77.1	4.82	36.0	2.25	76.6	4.79	37.9	2.37
3	82.7	5.17	42.9	2.68	86.7	5.42	49.3	3.08
4	82.7	5.17	45.6	2.85	76.5	4.78	39.7	2.48
5	82.6	5.16	46.4	2.90	84.0	5.25	43.8	2.74
6	81.6	5.10	59.8	3.74	82.6	5.16	42.9	2.68
7	81.8	5.11	51.0	3.19	77.0	4.81	42.1	2.63
8	83.7	5.23	46.7	2.92	73.6	4.60	35.2	2.20
9	91.4	5.71	41.8	2.61	69.4	4.34	42.4	2.65

Test Date:	5/18/2004
Operator:	Troy Cook
Temperature (C):	23
Humidity (RH):	59%
Equipment ID:	TCT-03
Load Cell ID:	LC-2500N(icell)

Test Date:	6/8/2004
Operator:	Troy Cook
Temperature (C):	22
Humidity (RH):	49%
Equipment ID:	TCT-03
Load Cell ID:	LC-2500N(icell)

	After Thermal				After Humidity			
	Mating		**Unmating**		**Mating**		**Unmating**	
Sample#	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)
1	41.1	2.57	6.7	0.42	41.4	2.59	9.6	0.60
2	39.8	2.49	7.2	0.45	39.7	2.48	8.8	0.55
3	36.0	2.25	9.8	0.61	39.8	2.49	9.1	0.57
4	42.4	2.65	7.2	0.45	39.7	2.48	11.0	0.69
5	39.2	2.45	9.9	0.62	39.0	2.44	12.8	0.80
6	38.6	2.41	11.4	0.71	42.6	2.66	14.4	0.90
7	39.8	2.49	13.0	0.81	44.3	2.77	12.2	0.76
8	38.9	2.43	10.1	0.63	44.5	2.78	8.3	0.52
9	39.2	2.45	2.7	0.17	40.6	2.54	6.7	0.42

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA Continued

NORMAL FORCE (FOR CONTACTS TESTED IN THE HOUSING):

Test Date:	6/9/2004
Operator:	Troy Cook
Temperature:	23
Humidity:	43%
Equipment ID:	TCT-03
Load Cell ID:	LC-5N(icell)
Contact:	N/A
Used In:	MODS-C

Initial	Deflections in inches Forces in Grams					
Sample #	**0.006**	**0.012**	**0.024**	**0.036**	**0.048**	***SET***
1	6.24	14.78	34.48	62.06	92.60	0.00253
2	5.67	13.13	31.64	53.13	82.39	0.00194
3	6.57	14.78	33.82	60.42	92.60	0.00117
4	5.91	15.04	31.97	53.73	81.40	0.00201
5	6.57	14.93	34.93	57.31	89.55	0.00000
6	6.87	14.03	31.94	54.33	86.87	0.00194
7	6.87	15.22	35.22	56.72	87.76	0.00156

Test Date:	6/9/2004
Operator:	Troy Cook
Temperature:	23
Humidity:	43%
Equipment ID:	TCT-03
Load Cell ID:	LC-5N(icell)
Contact:	N/A
Used In:	MODS-C

Thermal	Deflections in inches Forces in Grams				
Sample #	**0.006**	**0.012**	**0.024**	**0.036**	**0.048**
1	11.82	24.72	48.72	74.87	102.10
2	12.03	25.22	55.10	83.82	112.90
3	12.54	24.00	51.22	75.94	101.40
4	11.16	24.96	50.57	73.55	95.22
5	11.46	24.00	50.15	74.87	99.94
6	12.42	27.16	56.66	85.76	112.10

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA Continued

DIELECTRIC WITHSTANDING VOLTAGE (DWV):

Test Date:	5/3/2004
Operator:	Troy Cook
Temperature (C):	23
Humidity (RH):	36%
Equipment ID:	HPM-01
Contact Part #:	N/A
Used In:	MODS-C

Test Conditions	**YES**	**NO**
Adjacent Contacts	**X**	
Mated		**X**
PC Mounted	**X**	

	Voltage Rate ***500 VAC Per Sec.***		
	Test Voltage ***Until Breakdown Occurs***		
	Initial, VAC Unmated		
Sample #	**Breakdown Voltage**	**DWV**	**Working Voltage**
1	2000	1500	500
2	1900	1425	475

Test Date:	5/18/2004
Operator:	Troy Cook
Temperature (C):	23
Humidity (RH):	54%
Equipment ID:	HPM-01
Contact Part #:	N/A
Used In:	MODS-C

Test Conditions	**YES**	**NO**
Adjacent Contacts	X	
Mated		X
PC Mounted	X	

	Voltage Rate ***500 VAC Per Sec.***		
	Test Voltage ***Until Breakdown Occurs***		
	Thermal, VAC Unmated		
Sample #	**Breakdown Voltage**	**DWV**	**Working Voltage**
1	1800	1350	450

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA Continued

DIELECTRIC WITHSTANDING VOLTAGE (DWV):

Test Date:	6/9/2004
Operator:	Troy Cook
Temperature (C):	22
Humidity (RH):	45%
Equipment ID:	HPM-01
Contact Part #:	N/A
Used In:	TC0415--0415, MODS-C

Test Conditions	YES	NO
Adjacent Contacts	X	
Mated		X
PC Mounted		X

	Voltage Rate *500 VAC Per Sec.*		
	Test Voltage *Until Breakdown Occurs*		
	Humidity, VAC Unmated		
Sample #	Breakdown Voltage	DWV	Working Voltage
1	1900	1425	475

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA Continued

INSULATION RESISTANCE (IR):

Test Date:	5/3/2004
Operator:	Troy Cook
Temperature (C):	23
Humidity (RH):	36%
Equipment ID:	HPM-01

Contact Part #:	N/A
Used In:	MODS-C

Test Conditions	**YES**	**NO**
Adjacent Contacts	**X**	
Mated		**X**
PC Mounted	**X**	

Electrification Time ***Two (2) minutes***

Initial, Meg Ohms

	Unmated
Sample #	**Insulation Resistance**
1	100000
2	100000

Test Date:	5/18/2004
Operator:	Troy Cook
Temperature (C):	23
Humidity (RH):	54%
Equipment ID:	HPM-01

Contact Part #:	N/A
Used In:	MODS-C

Test Conditions	**YES**	**NO**
Adjacent Contacts	**X**	
Mated	**X**	**X**
PC Mounted	**X**	

Electrification Time ***Two (2) minutes***

Thermal, Meg Ohms

	Unmated
Sample #	**Insulation Resistance**
1	50000
2	50000

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA Continued

INSULATION RESISTANCE (IR):

Test Date:	6/8/2004
Operator:	Troy Cook
Temperature (C):	23
Humidity (RH):	56%
Equipment ID:	HPM-01

Contact Part #:	N/A
Used In:	MODS-C

Test Conditions	**YES**	**NO**
Adjacent Contacts	**X**	
Mated	**X**	**X**
PC Mounted	**X**	

Electrification Time ***Two (2) minutes***

Humidity, Meg Ohms

	Unmated
Sample #	**Insulation Resistance**
1	100000
2	100000

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA Continued

LLCR – 250 Cycle Group:

Date	May 03 2004	May 05 2004	May 17 2004	May 26 2004
Room Temp C	23	23	23	23
RH	35%	40%	45%	45%
Name	Troy Cook	Troy Cook	Troy Cook	Troy Cook

mOhm values		Actual	Delta	Delta	Delta
Board	Position	Initial	250 Cycles	Thermal	Humidity
1	P1	31.0	0.6	0.3	0.4
1	P2	29.3	0.3	0.5	0.6
1	P3	30.5	0.6	1.0	0.9
1	P4	29.2	0.7	0.9	0.9
1	P5	30.5	0.8	1.0	1.0
1	P6	29.1	0.7	0.7	0.9
1	P7	30.7	0.5	0.6	0.9
1	P8	29.2	0.5	0.7	1.0
1	P9	31.5	0.6	0.9	0.7
1	P10	29.4	0.3	1.1	0.7
1	P11	31.2	0.4	1.3	1.0
1	P12	29.8	0.6	1.1	1.0
1	P13	31.4	0.4	0.8	0.9
1	P14	29.5	0.4	1.1	1.1
1	P15	31.5	0.3	0.8	0.8
1	P16	29.9	0.6	0.9	1.0
1	P17	31.0	0.4	0.3	0.3
1	P18	28.7	0.5	0.9	0.7
1	P19	29.9	0.4	1.2	0.9
1	P20	28.8	1.0	1.7	0.6
1	P21	30.1	0.3	0.8	0.9
1	P22	28.7	0.7	1.2	0.6
1	P23	30.5	0.4	1.1	0.4
1	P24	28.8	0.4	1.1	0.9
2	P1	30.4	0.3	0.3	0.0
2	P2	28.9	1.0	1.0	0.9
2	P3	30.0	1.4	0.8	0.8
2	P4	28.7	1.0	1.8	1.4
2	P5	30.4	0.0	0.7	0.7
2	P6	25.5	0.1	0.6	0.7
2	P7	31.0	0.2	0.6	0.4
2	P8	25.8	0.0	0.3	0.3
2	P9	29.6	0.1	1.6	1.7
2	P10	27.8	0.4	0.6	0.9
2	P11	29.3	0.3	0.7	6.5
2	P12	28.5	0.1	0.7	0.8

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

2	P13	29.5	0.2	0.9	1.1
2	P14	28.3	0.2	0.5	0.9
2	P15	29.8	0.5	0.3	0.5
2	P16	29.1	0.2	0.6	0.8
2	P17	29.8	-0.1	0.3	0.3
2	P18	28.4	0.1	1.0	1.1
2	P19	30.1	0.3	0.6	0.8
2	P20	29.5	0.5	0.3	0.4
2	P21	29.6	0.1	1.4	1.5
2	P22	24.0	0.2	0.9	1.1
2	P23	29.8	0.1	1.2	1.3
2	P24	23.8	0.5	0.7	1.2
3	P1	30.1	0.5	0.6	0.5
3	P2	28.0	0.3	0.6	0.7
3	P3	29.6	0.5	1.0	1.0
3	P4	28.5	0.4	1.1	0.8
3	P5	30.5	0.9	1.1	1.0
3	P6	28.3	0.8	0.8	0.9
3	P7	30.8	0.3	0.2	0.4
3	P8	28.6	0.6	20.2	7.8
3	P9	30.3	0.7	0.9	0.6
3	P10	28.6	0.1	0.6	0.6
3	P11	30.1	0.6	0.4	0.3
3	P12	28.9	0.1	1.0	0.5
3	P13	29.9	0.4	0.9	0.9
3	P14	30.2	0.2	5.2	6.0
3	P15	30.3	-0.1	0.0	0.0
3	P16	28.9	0.2	0.7	0.3
3	P17	29.5	0.3	0.9	0.5
3	P18	27.7	0.4	0.8	0.6
3	P19	29.0	0.6	1.5	0.9
3	P20	28.1	0.5	2.4	2.0
3	P21	29.5	0.4	1.7	1.0
3	P22	28.1	1.0	1.4	0.8
3	P23	29.4	0.6	1.1	0.5
3	P24	27.9	0.6	0.5	0.5
4	P1	30.5	0.3	0.9	0.5
4	P2	28.8	0.2	1.0	0.6
4	P3	30.9	-0.1	1.4	1.1
4	P4	29.2	0.0	1.2	1.6
4	P5	30.3	0.4	0.6	0.4
4	P6	29.4	0.3	0.5	0.4
4	P7	31.1	0.3	0.9	0.8
4	P8	29.1	0.7	1.1	9.2
4	P9	30.9	0.3	0.5	0.6
4	P10	29.1	0.3	0.8	0.8
4	P11	31.0	0.3	0.5	0.6
4	P12	29.2	0.5	1.3	1.3
4	P13	30.6	0.3	0.8	0.9
4	P14	29.3	0.3	1.1	1.2

4	P15	31.3	0.5	0.5	0.4
4	P16	29.4	0.4	1.5	2.5
4	P17	30.6	0.3	0.7	1.1
4	P18	29.1	0.3	1.0	0.5
4	P19	31.0	0.8	1.0	1.1
4	P20	29.7	0.2	0.7	0.9
4	P21	30.9	0.1	0.4	0.4
4	P22	29.5	0.5	0.6	0.4
4	P23	31.3	0.5	0.8	1.5
4	P24	29.1	0.4	1.1	1.1

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

DATA Continued

LLCR – 500 Cycle Group:

Date	May 03 2004	May 05 2004	May 17 2004	May 26 2004
Room Temp C	23	23	23	23
RH	35%	40%	38%	45%
Name	Troy Cook	Troy Cook	Troy Cook	Troy Cook

mOhm values		Actual	Delta	Delta	Delta
Board	Position	Initial	500 Cycles	Thermal	Humidity
1	P1	30.4	0.3	0.2	0.3
1	P2	29.4	0.7	1.5	3.6
1	P3	30.4	1.2	1.4	5.1
1	P4	29.2	0.8	0.9	1.2
1	P5	30.0	0.7	0.7	0.8
1	P6	22.0	1.6	2.2	11.4
1	P7	30.1	1.2	1.1	4.7
1	P8	22.5	1.6	2.4	17.2
1	P9	28.3	0.7	2.6	11.5
1	P10	26.8	1.5	3.2	6.1
1	P11	28.5	0.6	1.1	1.3
1	P12	22.0	1.2	1.2	1.4
1	P13	29.0	0.5	0.6	1.1
1	P14	18.3	1.0	1.5	3.0
1	P15	29.0	1.5	1.9	5.4
1	P16	21.4	0.8	1.7	3.5
1	P17	27.7	0.6	1.3	2.6
1	P18	21.3	5.1	6.0	15.3
1	P19	27.3	1.1	3.5	1.9
1	P20	21.5	5.5	6.5	8.6
1	P21	27.1	0.9	1.8	1.2
1	P22	25.6	0.1	1.0	1.7
1	P23	27.5	0.5	1.5	1.9
1	P24	26.3	0.5	1.3	12.2
2	P1	26.8	3.2	3.7	8.7
2	P2	25.1	3.0	3.8	13.4
2	P3	27.0	2.5	3.0	3.3
2	P4	25.5	2.5	3.2	6.9
2	P5	26.6	2.9	4.2	6.8
2	P6	25.1	3.1	3.7	7.9
2	P7	26.8	3.2	3.4	8.1
2	P8	25.1	2.9	9.0	5.5
2	P9	26.1	3.8	4.8	4.4
2	P10	24.9	3.2	3.9	4.0
2	P11	26.3	3.6	3.7	4.1
2	P12	24.9	3.2	4.1	5.9

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

2	P13	26.3	3.1	4.1	4.0
2	P14	25.7	2.7	3.4	4.2
2	P15	26.7	4.0	4.7	4.5
2	P16	24.9	3.7	4.2	4.7
2	P17	26.5	3.5	4.7	4.9
2	P18	24.5	4.5	5.2	5.5
2	P19	26.4	3.9	4.7	4.6
2	P20	24.4	4.5	5.4	5.2
2	P21	25.9	4.4	5.2	4.9
2	P22	24.9	4.2	4.7	5.2
2	P23	26.4	4.5	4.7	5.1
2	P24	24.7	4.2	4.2	10.4
3	P1	29.3	-2.2	-2.3	-2.0
3	P2	27.9	-2.6	-2.8	-2.7
3	P3	29.6	-2.0	11.0	9.8
3	P4	27.8	-1.8	4.4	1.6
3	P5	29.1	-2.0	-1.9	-1.9
3	P6	27.9	-2.4	0.8	-0.6
3	P7	29.4	-2.1	11.6	6.1
3	P8	28.0	-2.1	-2.1	-2.4
3	P9	29.7	-2.5	-0.4	3.9
3	P10	27.8	-2.7	1.5	5.4
3	P11	30.1	-3.1	-2.3	-2.0
3	P12	15.2	-1.1	-0.6	-0.5
3	P13	29.6	-2.9	-2.3	-2.2
3	P14	12.4	-0.8	-0.6	-0.4
3	P15	30.1	-3.4	-3.2	-3.0
3	P16	15.4	-1.0	-0.8	-0.7
3	P17	30.0	-3.5	-3.3	-1.3
3	P18	28.2	-2.7	-2.8	7.8
3	P19	29.6	-2.7	-1.7	-1.8
3	P20	28.2	-2.7	-2.0	-2.6
3	P21	29.7	-3.3	-2.5	-2.7
3	P22	28.4	-2.9	-2.3	-2.5
3	P23	30.1	-3.1	-2.6	-2.9
3	P24	28.2	-2.6	-1.9	-1.7
4	P1	30.0	-0.1	0.8	6.8
4	P2	28.5	0.0	1.2	8.5
4	P3	30.4	-0.5	7.9	9.0
4	P4	28.8	0.0	2.7	10.2
4	P5	29.6	0.2	8.3	14.3
4	P6	28.6	1.0	3.3	4.6
4	P7	29.6	0.1	4.8	3.0
4	P8	28.3	0.2	0.2	0.4
4	P9	30.9	0.5	1.0	5.8
4	P10	29.2	0.2	1.0	12.6
4	P11	30.3	0.0	0.9	13.6
4	P12	29.7	-0.1	1.8	6.7
4	P13	30.7	0.0	0.5	4.4
4	P14	28.7	0.4	1.4	3.3

4	P15	30.8	0.4	1.7	3.1
4	P16	29.1	0.4	1.8	5.4
4	P17	29.3	0.7	1.3	1.8
4	P18	28.0	0.6	1.6	1.7
4	P19	29.7	0.4	0.8	7.1
4	P20	28.5	0.2	1.0	1.7
4	P21	30.2	0.2	0.6	2.6
4	P22	28.4	0.3	1.0	1.5
4	P23	30.1	0.9	1.2	5.9
4	P24	28.9	0.3	0.8	3.6

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

EQUIPMENT AND CALIBRATION SCHEDULES

Equipment #: THL-02
Description: Temperature/Humidity Chart Recorder
Manufacturer: Dickson
Model: THDX
Serial #: 00120351
Accuracy: Temp: +/- 1C; Humidity: +/-2% RH (0 - 60%) +/- 3% RH (61 - 95%).
… Last Cal: 6/02/04, Next Cal: 6/02/05

Equipment #: MO-02
Description: Multimeter /Data Acquisition System
Manufacturer: Keithley
Model: 2700
Serial #: 0780546
Accuracy: See Manual
… Last Cal6/12/03, Next Cal: 6/12/04

Equipment #: MO-04
Description: Multimeter /Data Acquisition System
Manufacturer: Keithley
Model: 2700
Serial #: 0798688
Accuracy: See Manual
… Last Cal: 6/12/03, Next Cal: 6/12/04

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: 6/12/03, Next Cal: 6/12/04

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: 4/27/04, Next Cal: 4/27/05

Equipment #: TC090601-103/105
Description: IC Thermocouple-103/105
Manufacturer: Samtec
Model:
Serial #: TC090601-103/105
Accuracy: +/- 1 degree C

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: 6/20/03, Next Cal: 6/30/04

Equipment #: THC-01
Description: Temperature/Humidity Chamber
Manufacturer: Thermotron
Model: SM-8-7800
Serial #: 30676
Accuracy: See Manual See Manual
… Last Cal: 4/22/2004, Next Cal: 5/22/2005

Equipment #: TCT-02
Description: Dillon Quantrol TC2 Test Stand
Manufacturer: Dillon
Model: PCM
Serial #: 280769
Accuracy: Speed Accuracy: +/- 5% of indicated speed; Displacement: +/- 5 micrometers.
… Last Cal: 6/12/02, Next Cal: 6/12/04

Equipment #: LC-5N
Description: 5 N Load Cell
Manufacturer: Dillon
Model: TC2 Load Cell
Serial #: 5370
Accuracy: +/- 0.2% of Full Scale +/- 1 LSC
… Last Cal: 5/19/04, Next Cal: 5/19/05

Equipment #: HPM-01
Description: Hipot Megommeter
Manufacturer: Hipotronics
Model: H306B-A
Serial #: M9905004
Accuracy: 2 % Full Scale Accuracy
… Last Cal: 6/12/03, Next Cal: 6/12/04

Equipment #: MO-01
Description: Micro-Ohmeter
Manufacturer: Keithley
Model: 580
Serial #: 00120351
Accuracy: See Manual
… Last Cal: 6/12/03, Next Cal: 6/12/04

Tracking Code: TC0415--0415	Part #: MODS-C-8P8C-E-S
Part description: Single Mod Jack	

Equipment #: MO-03
Description: Multimeter /Data Acquisition System
Manufacturer: Keithley
Model: 2700
Serial #: 0791975
Accuracy: See Manual
… Last Cal: 6/12/03, Next Cal: 6/12/04

Equipment #: CAPM-01
Description: BK Precision 810C Capacitance Meter
Manufacturer: BK Precision
Model: 810C
Serial #: 37011020007
Accuracy: See Manual for accuracy
… Last Cal: 4/28/2004, Next Cal: 4/28/2005