Project Number: Design Qualification Test Report	Tracking Code: 197843_Report_Rev_2			
Requested by: James Borgelt	Date: 5/09/2012	Product Rev: N/A		
Part #: ACP-16-07-H-00.35-T-S-P-1\ ACR-16-07-H-00.35-S-S1-P-1	Lot #: N/A	Tech: Craig Ryan	Eng: Eric Mings	
Part description: ACP\ACR			Qty to test: 17	
Test Start: 05/10/2012	Test Completed: 06/28/2012			

DESIGN QUALIFICATION TEST REPORT

ACP\ACR

ACP-16-07-H-00.35-T-S-P-1\ ACR-16-07-H-00.35-S-S1-P-1

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 Qualification test. Please see test plan.

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-103219-TST-XX

FLOWCHARTS

IR & DWV

TEST STEP	GROUP A1 2 Mated Sets 24 AWG to 24 AWG	GROUP B1 2 Mated Sets RF-to-Ground	GROUP C1 2 Mated Sets 24 AWG-to-Ground
01	IR & DWV at 900V test voltage (on both mated sets and on each connector unmated)	IR & DWV at 375V test voltage (on both mated sets and on each connector unmated)	IR & DWV at 900V test voltage (on both mated sets and on each connector unmated)
02	Thermal Shock (Mated and Undisturbed)	Thermal Shock (Mated and Undisturbed)	Thermal Shock (Mated and Undisturbed)
03	IR & DWV at 900Vtest voltage (on both mated sets and on each connector unmated)	IR & DWV at 375V test voltage (on both mated sets and on each connector unmated)	IR & DWV at 900V test voltage (on both mated sets and on each connector unmated)
04	Cyclic Humidity (Mated and Undisturbed)	Cyclic Humidity (Mated and Undisturbed)	Cyclic Humidity (Mated and Undisturbed)
05	IR & DWV at 900V test voltage (on both mated sets and on each connector unmated)	IR & DWV at 375V test voltage (on both mated sets and on each connector unmated)	IR & DWV at 900V test voltage (on both mated sets and on each connector unmated)

DWV on Group B1 to be performed at Test Voltage

DWV test voltage is equal to 75% of the lowest break down voltage from Groups A1, A2 or A3

Thermal Shock = EIA-364-32, Table II, Test Condition I:

-55°C to +85°C 1/2 hour dwell, 100 cycles

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, Test Condition 1

FLOWCHARTS Continued

Durability/Mating/Unmating/Gaps

TEST STEP	GROUP A1 8 Assemblies
02	LLCR-1
03	Forces - Mating / Unmating
04	25 Cycles
05	Forces - Mating / Unmating
06	25 Cycles (50 Total)
07	Forces - Mating / Unmating
08	25 Cycles (75 Total)
09	Forces - Mating / Unmating
10	25 Cycles (100 Total)
11	Forces - Mating / Unmating
12	Clean w/Compressed Air
14	LLCR-2
15	Thermal Shock (Mated and Undisturbed)
16	LLCR-3
17	Cyclic Humidity (Mated and Undisturbed)
18	LLCR-4
19	Forces - Mating / Unmating

Thermal Shock = EIA-364-32, Table II, Test Condition I:

-55°C to +85°C 1/2 hour dwell, 100 cycles

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 / Unmating Forces = EIA-364-13

LLCR = EIA-364-23, LLCR

20 mV Max, 100 mA Max

Use Keithley 580 or 3706 in 4 wire dry circuit mode

FLOWCHARTS Continued

Current Carrying Capacity - Array

TEST STEP	GROUP A1 3 Mated Assemblies All Contacts Powered
01	CCC

(TIN PLATING) - Tabulate calculated current at RT, 65°C, 75°C and 95°C after derating 20% and based on 105°C

(GOLD PLATING) - Tabulate calculated current at RT, 85°C, 95°C and 115°C after derating 20% and based on 125°C

CCC, Temp rise = EIA-364-70

ATTRIBUTE DEFINITIONS

The following is a brief, simplified description of attributes.

THERMAL SHOCK:

1) EIA-364-32, *Thermal Shock (Temperature Cycling) Test Procedure for Electrical Connectors.*
2) Test Condition 1: -55℃ to +85℃
3) Test Time: ½ hour dwell at each temperature extreme
4) Number of Cycles: 100
5) All test samples are pre-conditioned at ambient.
6) 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.

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.

LLCR:

1) EIA-364-23, *Low Level Contact Resistance Test Procedure for Electrical Connectors and Sockets*.
2) 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

ATTRIBUTE DEFINITIONS Continued

The following is a brief, simplified description of attributes

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:
    a. When the specified test voltage is applied (VDC), the insulation resistance shall not be less than 1000 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. Barometric Test Condition 1
        iii. Rate of Application 500 V/Sec
        iv. 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).

ATTRIBUTE DEFINITIONS Continued

The following is a brief, simplified description of attributes

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. 60^{o} C
    c. 70^{o} C
    d. 90^{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.

RESULTS

Temperature Rise, CCC at a 20% de-rating

- **CCC for a 30°C Temperature Rise ----------3.2 A per contact with all powered (Cable Bundle)**
  (RF Powered at 2.05 Amps, 24 AWG monitored)

Mating – Unmating Forces

Mating\Unmating Durability Group

- **Initial**
  - **Mating**
    - **Min ---------- 2.92 Lbs**
    - **Max---------- 3.58 Lbs**
  - **Unmating**
    - **Min ---------- 1.96 Lbs**
    - **Max---------- 2.46 Lbs**
- **After 25 Cycles**
  - **Mating**
    - **Min ---------- 4.00 Lbs**
    - **Max---------- 4.82 Lbs**
  - **Unmating**
    - **Min ---------- 3.33 Lbs**
    - **Max---------- 3.88 Lbs**
- **After 50 Cycles**
  - **Mating**
    - **Min ---------- 4.44 Lbs**
    - **Max---------- 5.32 Lbs**
  - **Unmating**
    - **Min ---------- 3.80 Lbs**
    - **Max---------- 4.73 Lbs**
- **After 75 Cycles**
  - **Mating**
    - **Min ---------- 4.68 Lbs**
    - **Max---------- 5.96 Lbs**
  - **Unmating**
    - **Min ---------- 3.99 Lbs**
    - **Max---------- 5.26 Lbs**
- **After 100 Cycles**
  - **Mating**
    - **Min ---------- 4.86 Lbs**
    - **Max---------- 6.53 Lbs**
  - **Unmating**
    - **Min ---------- 4.09 Lbs**
    - **Max---------- 5.75 Lbs**
- **After Humidity**
  - **Mating**
    - **Min ---------- 3.68 Lbs**
    - **Max---------- 5.15 Lbs**
  - **Unmating**
    - **Min ---------- 2.46 Lbs**
    - **Max---------- 3.40 Lbs**

RESULTS Continued

Insulation Resistance minimums, IR

24 AWG to 24 AWG:

- **Initial**
  - **Mated---------- 100000 Meg Ohms ---------- Pass**
  - **Unmated ---------- 100000 Meg Ohms ---------- Pass**
- **Thermal**
  - **Mated---------- 100000 Meg Ohms ---------- Pass**
  - **Unmated ---------- 100000 Meg Ohms ---------- Pass**
- **Humidity**
  - **Mated----------50000 Meg Ohms ---------- Pass**
  - **Unmated ---------- 100000 Meg Ohms ---------- Pass**

RF Signal to Ground:

- **Initial**
  - **Mated---------- 100000 Meg Ohms ---------- Pass**
  - **Unmated ---------- 100000 Meg Ohms ---------- Pass**
- **Thermal**
  - **Mated---------- 100000 Meg Ohms ---------- Pass**
  - **Unmated ---------- 100000 Meg Ohms ---------- Pass**
- **Humidity**
  - **Mated---------- 100000 Meg Ohms ---------- Pass**
  - **Unmated ---------- 100000 Meg Ohms ---------- Pass**

24 AWG to Ground:

- **Initial**
  - **Mated---------- 100000 Meg Ohms ---------- Pass**
  - **Unmated ---------- 100000 Meg Ohms ---------- Pass**
- **Thermal**
  - **Mated---------- 100000 Meg Ohms ---------- Pass**
  - **Unmated ---------- 100000 Meg Ohms ---------- Pass**
- **Humidity**
  - **Mated----------25000 Meg Ohms ---------- Pass**
  - **Unmated ----------25000 Meg Ohms ---------- Pass**

RESULTS Continued

Dielectric Withstanding Voltage minimums, DWV

- **Minimums**
  - **Test Voltage 24AWG to 24AWG----------900 VAC**
  - **Working Voltage ----------300 VAC**

  - **Test Voltage 24AWG to Ground----------900VAC**
  - **Working Voltage ----------300VAC**

  - **Test Voltage RF to Ground ----------375VAC**
  - **Working Voltage ----------125VAC**

24AWG to 24AWG:

- **Initial DWV ----------Passed**
- **Thermal DWV----------Passed**
- **Humidity DWV----------Passed**

RF to Ground:

- **Initial DWV ----------Passed**
- **Thermal DWV----------Passed**
- **Humidity DWV----------Passed**

24AWG to Ground:

- **Initial DWV ----------Passed**
- **Thermal DWV----------Passed**
- **Humidity DWV----------Passed**

RESULTS Continued

LLCR:

Mating\Unmating Durability Group (80 LLCR test points)

RF Pin:

- **Initial ---------- 54.10 mOhms Max**
- **Durability, 100 Cycles**
  - **<= +5.0 mOhms ---------- 48 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 ---------- 46 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**
- **Humidity**
  - **<= +5.0 mOhms ---------- 47 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 ---------- 0 Points ---------- Marginal**
  - **+50.1 to +2000 mOhms ---------- 0 Points ---------- Unstable**
  - **>+2000 mOhms ---------- 0 Points ---------- Open Failure**

24 AWG pin:

- **Initial ---------- 169.64 mOhms Max**
- **Durability, 100 Cycles**
  - **<= +5.0 mOhms ---------- 8 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 ---------- 8 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 ---------- 8 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**

RESULTS Continued

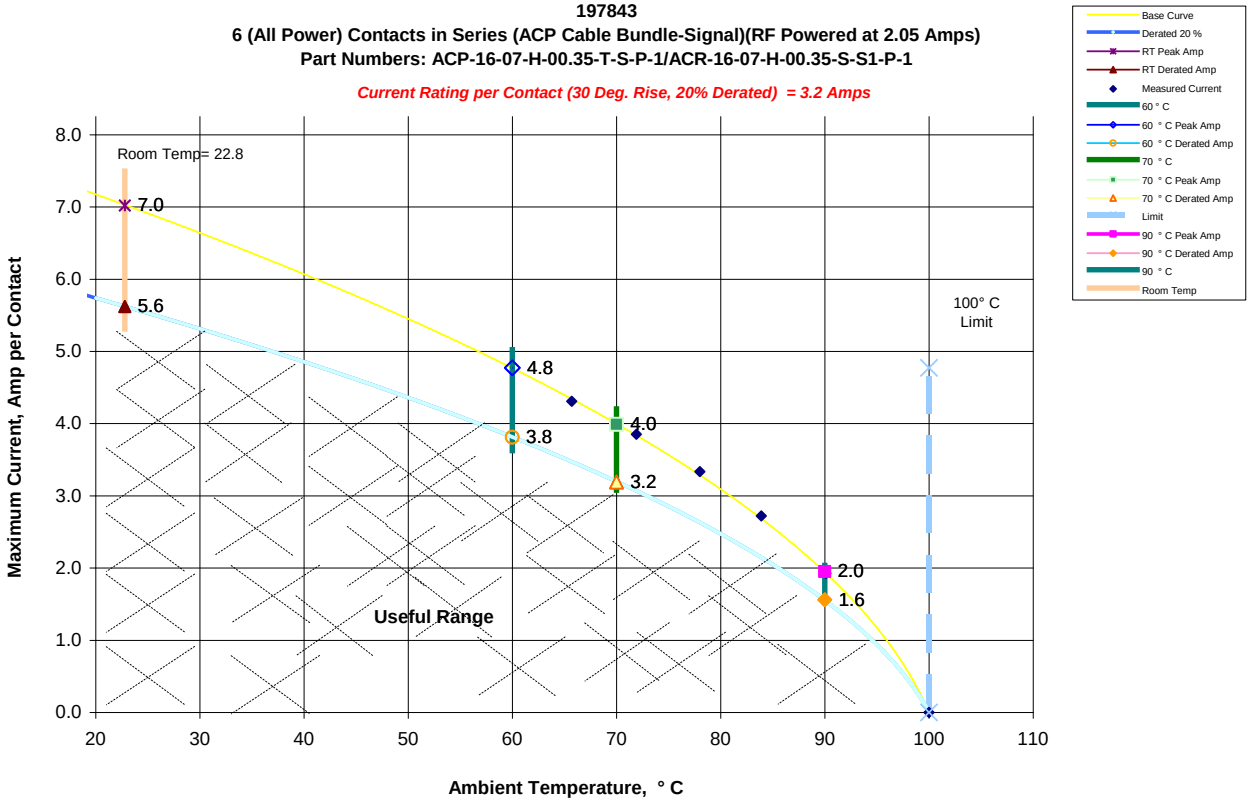
Ground:

- **Initial ---------- 19.49 mOhms Max**
- **Durability, 100 Cycles**
  - **<= +5.0 mOhms ---------- 8 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 ---------- 8 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 ---------- 8 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

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) Adjacent contacts were powered:



DATA SUMMARIES Continued

MATING/UNMATING FORCE:

Mating\Unmating Durability Group

	Initial				25 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	12.99	2.92	8.72	1.96	17.79	4.00	14.81	3.33
Maximum	15.92	3.58	10.94	2.46	21.44	4.82	17.26	3.88
Average	14.20	**3.19**	9.85	**2.21**	19.82	**4.46**	16.28	**3.66**
St Dev	1.04	0.23	0.71	0.16	1.13	0.25	1.01	0.23
Count	8	8	8	8	8	8	8	8
	50 Cycles				75 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	19.75	4.44	16.90	3.80	20.82	4.68	17.75	3.99
Maximum	23.66	5.32	21.04	4.73	26.51	5.96	23.40	5.26
Average	22.21	**4.99**	19.20	**4.32**	23.81	**5.35**	20.65	**4.64**
St Dev	1.45	0.33	1.52	0.34	1.99	0.45	1.82	0.41
Count	8	8	8	8	8	8	8	8
	100 Cycles				After Humidity			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	21.62	4.86	18.19	4.09	16.37	3.68	10.94	2.46
Maximum	29.05	6.53	25.58	5.75	22.91	5.15	15.12	3.40
Average	25.15	**5.65**	21.96	**4.94**	19.47	**4.38**	13.24	**2.98**
St Dev	2.42	0.54	2.33	0.52	2.55	0.57	1.83	0.41
Count	8	8	8	8	8	8	8	8

DATA SUMMARIES Continued

INSULATION RESISTANCE (IR):

	24AWG to 24 AWG		
	Mated	Unmated	Unmated
Minimum	**ACP/ACR**	**ACP**	**ACR**
Initial	100000	100000	100000
Thermal	100000	100000	100000
Humidity	50000	100000	100000

	24 AWG to Ground		
	Mated	Unmated	Unmated
Minimum	**ACP/ACR**	**ACP**	**ACR**
Initial	100000	100000	100000
Thermal	100000	100000	100000
Humidity	25000	25000	50000

	RF to Ground		
	Mated	Unmated	Unmated
Minimum	**ACP/ACR**	**ACP**	**ACR**
Initial	100000	100000	100000
Thermal	100000	100000	100000
Humidity	100000	100000	100000

DATA SUMMARIES Continued

ELECTRIC WITHSTANDING VOLTAGE(DWV):

Voltage Rating Summary	
Minimum	**ACP/ACR-24AWG**
Break Down Voltage	Not Tested
Test Voltage	900
Working Voltage	300

Voltage Rating Summary	
Minimum	**ACP/ACR-RF**
Break Down Voltage	Not Tested
Test Voltage	375
Working Voltage	125

24AWG to 24AWG Test Voltage = 900V	
Initial Test Voltage	Passed
After Thermal Test Voltage	Passed
After Humidity Test Voltage	Passed

RF to Ground Test Voltage = 375V	
Initial Test Voltage	Passed
After Thermal Test Voltage	Passed
After Humidity Test Voltage	Passed

24AWG to Ground Test Voltage = 900V	
Initial Test Voltage	Passed
After Thermal Test Voltage	Passed
After Humidity Test Voltage	Passed

DATA SUMMARIES Continued

LLCR:

Mating\Unmating Durability Group

1) A total of 40 points were measured.
2) EIA-364-23, *Low Level Contact Resistance Test Procedure for Electrical Connectors and Sockets.*
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

LLCR Measurement Summaries by Pin Type				
Date	5/17/2012	5/31/2012	6/8/2012	6/26/2012
Room Temp (Deg C)	22	23	22	22
Rel Humidity (%)	32	36	33	36
Technician	Aaron McKim	Aaron McKim	Aaron McKim	Troy Cook
mOhm values	**Actual Initial**	**Delta 100 Cycles**	**Delta Therm Shck**	**Delta Humidity**
	Pin Type 1: RF Signal			
Average	52.10	0.13	0.54	0.70
St. Dev.	0.54	0.14	1.34	1.33
Min	51.10	0.02	0.01	0.00
Max	54.10	0.92	7.28	7.91
Summary Count	48	48	48	48
Total Count	48	48	48	48
	Pin Type 2: 24 AWG			
Average	168.69	0.64	0.66	0.71
St. Dev.	0.39	0.14	0.11	0.10
Min	168.24	0.39	0.47	0.55
Max	169.64	0.87	0.85	0.82
Summary Count	8	8	8	8
Total Count	8	8	8	8
	Pin Type 3: Ground			
Average	19.27	0.14	0.07	0.07
St. Dev.	0.14	0.04	0.03	0.05
Min	19.06	0.07	0.04	0.01
Max	19.49	0.21	0.13	0.18
Summary Count	8	8	8	8
Total Count	8	8	8	8

LLCR Delta Count by Category						
	Stable	**Minor**	**Acceptable**	**Marginal**	**Unstable**	**Open**
mOhms	**<=5**	**>5 & <=10**	**>10 & <=15**	**>15 & <=50**	**>50 & <=1000**	**>1000**
100 Cycles	**64**	**0**	**0**	**0**	**0**	**0**
Therm Shck	**62**	**2**	**0**	**0**	**0**	**0**
Humidity	**63**	**1**	**0**	**0**	**0**	**0**

EQUIPMENT AND CALIBRATION SCHEDULES

Equipment #: MO-04
Description: Multimeter /Data Acquisition System
Manufacturer: Keithley
Model: 2700
Serial #: 0798688
Accuracy: See Manual
… Last Cal: 03/27/2012, Next Cal: 03/27/2013

Equipment #: RS-09
Description: Current Shunt
Manufacturer: Empro
Model: HA10050
Serial #: HA10050-1
Accuracy: +/- 0.25% of RDG
… Last Cal: 05/30/2012, Next Cal: 05/30/2013

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: 05/03/2011, Next Cal: 05/03/2013

Equipment #: THC-02
Description: Temperature/Humidity Chamber (SJR Room – Unit #1)
Manufacturer: Thermotron
Model: SE-1000-6-6
Serial #: 31808
Accuracy: See Manual
… Last Cal: 11/04/2011, Next Cal: 11/04/2012

Equipment #: HPM-01
Description: Hipot Megommeter
Manufacturer: Hipotronics
Model: H306B-A
Serial #: M9905004
Accuracy: 2 % Full Scale Accuracy
… Last Cal: 05/24/2012, Next Cal: 08/24/2012