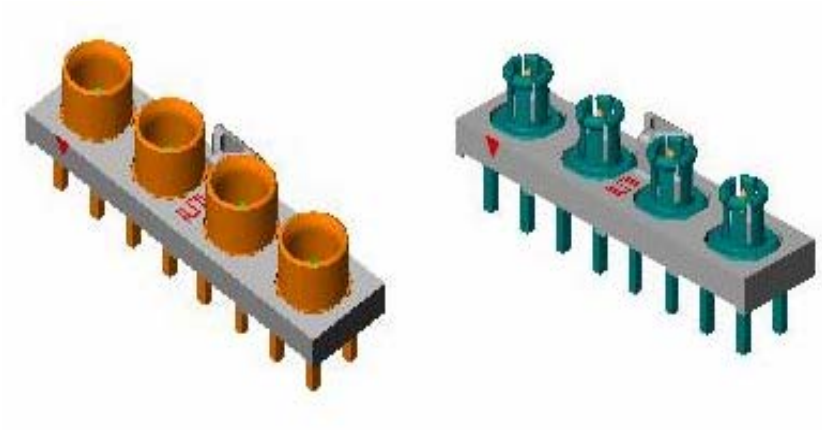
Project Number:	Tracking Code: TC0541--0853		
Requested by: Brandon Harpenau	Date: 10/5/2005	Product Rev: 1	
Part #: GRF1-J-P-XX-E-ST-TH1	Lot #: 1	Tech: Troy Cook	Eng: Mark Shireman
Part description: Gang RF Board Plug/Jack			Qty to test: 63
Test Start: 10/19/2005	Test Completed: 11/10/2005		



PART DESCRIPTION

GRF1-J-P-XX-E-ST-TH1
Design Verification Report
Mated with GRF1-P-P-XX-E-ST-TH1

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/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: Please complete a full DVT.

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) 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.
    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
    c. Sample test boards are removed and placed into the Branson 3510 cleaner containing deionized water with the following conditions:
        i. Temperature: --------55° C +/- 5° C
        ii. Frequency:----------40 KHz
        iii. Immersion Time: ---5 to 10 Minutes
    d. Sample test boards are 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.
    e. Upon removal, the sample boards are rinsed for ½ to 1 minute at room temperature with free flowing deionized water.
    f. 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.
    g. 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 sequences.
9) Solder Information:
10) Re-Flow Time/Temp: See accompanying profile.
11) Internal Test PCBs used: PCB-100366-TST

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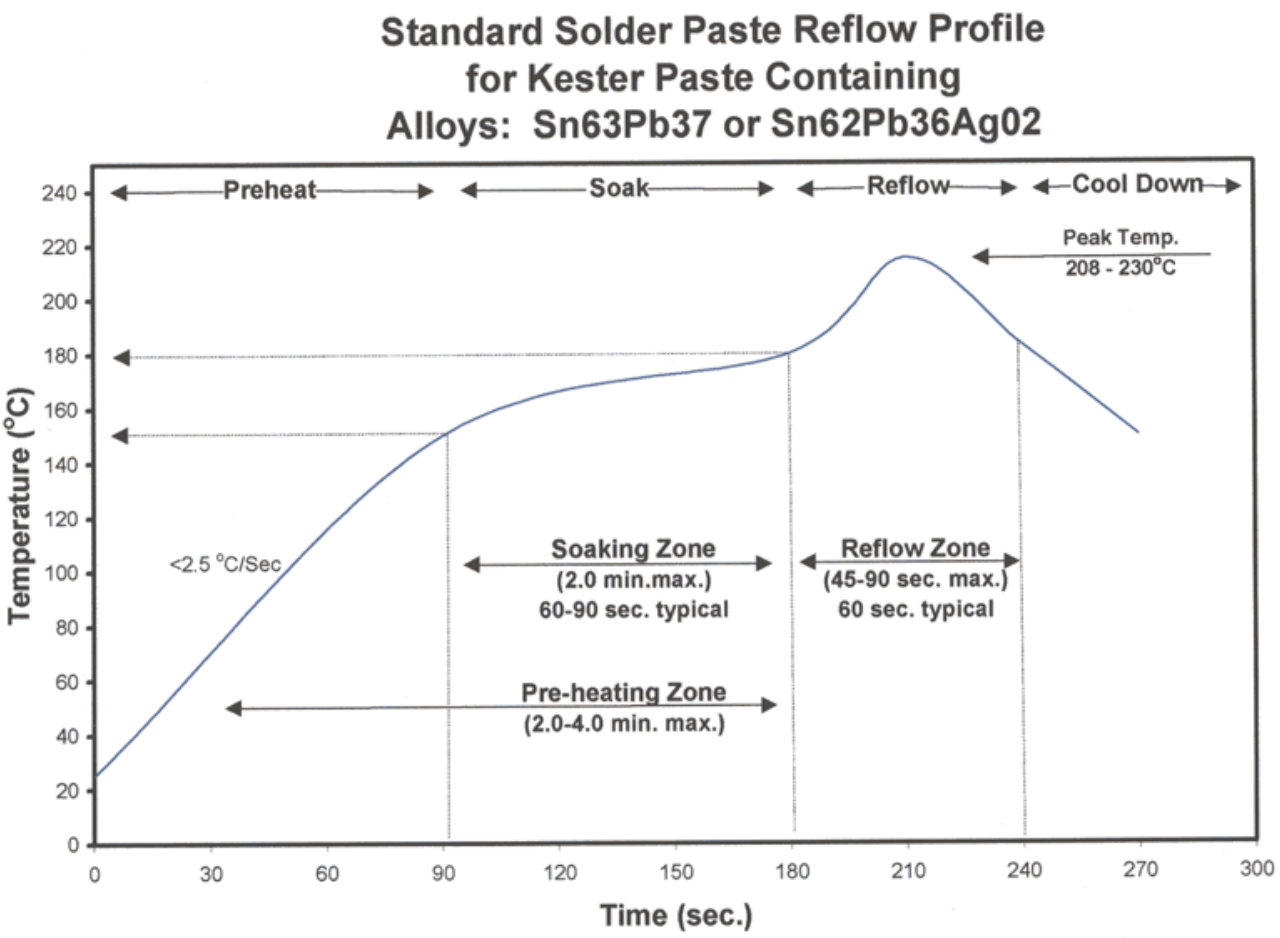
OVEN PROFILE (Soldering Parts to Test Boards)



Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

FLOWCHARTS

Current Carrying Capacity

TEST STEP	GROUP A 1 board min 1 Contact
01	CCC

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

Mating/Unmating

TEST STEP	GROUP A 10 Mated Assemblies 500 Cycles-SIG
01	Initial Mating / Unmating
02	Data Review
03	100 Cycles
04	Mating / Unmating
05	Data Review
06	500 Cycles
07	Mating / Unmating
08	Data Review
09	1000 Cycles
10	Mating / Unmating
11	Data Review
12	Thermal Aging (Mated)
13	Mating / Unmating
14	Data Review
15	Humidity (Mated)
16	Mating / Unmating

Thermal Aging = 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 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

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
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FLOWCHARTS Continued

IR / DWV

TEST STEP	GROUP A 2 Mated Assemblies Ambient	GROUP B1 2 Mated Assemblies Ambient	GROUP B2 2 Mated Assemblies Thermal	GROUP B3 2 Mated Assemblies 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 3, 85 deg C;
Time Condition 'A' (96 hours)
Humidity =EIA-364-31, Test Condition A' (96 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

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Durability/Thermal Age/Cyclic Humidity

TEST STEP	GROUP A 100 Cycles - Sig.& Grd.	GROUP B 500 Cycles - Sig.& Grd.	GROUP C 1000 Cycles - Sig.& Grd.
01	LLCR-1	LLCR-1	LLCR-1
02	Data Review	Data Review	Data Review
03	100 Cycles	500 Cycles	1000 Cycles
04	LLCR-2	LLCR-2	LLCR-2
05	Data Review	Data Review	Data Review
06	Thermal Age	Thermal Age	Thermal Age
07	LLCR-3	LLCR-3	LLCR-3
08	Data Review	Data Review	Data Review
09	Cyclic Humidity	Cyclic Humidity	Cyclic Humidity
10	LLCR-4	LLCR-4	LLCR-4

Thermal Aging = 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 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

Gas Tight

TEST STEP	8 Mated Assemblies GROUP A 32 Points - Sig .& Ground
01	LLCR-1
02	Gas Tight
03	LLCR-2

Gas Tight = EIA-364-36
LLCR = EIA-364-23, LLCR
use Keithley 580 in the dry circuit mode, 10 mA Max

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

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 3 at 85° C.
3) Test Time Condition A for 96 hours.
4) Connectors are sometimes mated and all samples are pre-conditioned at ambient.

HUMIDITY:

1) Reference document: EIA-364-31, *Humidity Test Procedure for Electrical Connectors.*
2) Test Condition A, 96 Hours.
3) Method III, +25° C to + 65° C, 90% to 98% Relative Humidity excluding sub-cycles 7a and 7b.
4) Connectors are sometimes mated and all samples are 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. 85^{o} C
    c. 95^{o} C
    d. 115^{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.

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
        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
        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

GAS TIGHT:

To provide method for evaluating the ability of the contacting surfaces in preventing penetration of harsh vapors which might lead to oxide formation that may degrade the electrical performance of the contact system.

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

4) Procedure:
    a. Reference document: EIA-364-36, *Test Procedure for Determination of Gas-Tight Characteristics for Electrical Connectors, Sockets and/or Contact Systems*.
    b. Test Conditions:
        i. Class II--- Mated pairs of contacts assembled to their plastic housings.
        ii. Reagent grade Nitric Acid shall be used of sufficient volume to saturate the test chamber
        iii. The ratio of the volume of the test chamber to the surface area of the acid shall be less than 10.
        iv. The chamber shall be saturated with the vapor for at least 15 minutes before samples are added.
        v. Exposure time, 55 to 65 minutes.
        vi. The samples shall be no closer to the chamber walls than 1 inches and no closer to the surface of the acid than 3 inches.
        vii. The samples shall be dried after exposure for a minimum of 1 hour.
        viii. Drying temperature 50^{o} C
        ix. The final LLCR shall be conducted within 1 hour after drying.

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Part description: Gang RF Board Plug/Jack	

RESULTS

Temperature Rise, CCC at a 20% de-rating

- **CCC for a 30°C Temperature Rise (Signal) ----------3.6 A per contact with 8 adjacent contacts powered**
- **CCC for a 30°C Temperature Rise (Ground) ----------6.2 A per contact with 8 adjacent contacts powered**

Mating – Unmating Forces

- **Initial – 8 Position**
  - **Mating**
    - **Min ----------19.7 Lbs.**
    - **Max----------26.5 Lbs.**
  - **Unmating**
    - **Min ----------11.4 Lbs.**
    - **Max----------22.6 Lbs.**

- **Initial – 4 Position**
  - **Mating**
    - **Min ----------10.2 Lbs.**
    - **Max----------13.3 Lbs.**
  - **Unmating**
    - **Min ---------- 4.5 Lbs.**
    - **Max----------10.6 Lbs.**

- **After 100 Cycles – 8 Position**
  - **Mating**
    - **Min ----------20.1 Lbs.**
    - **Max----------31.3 Lbs.**
  - **Unmating**
    - **Min ----------11.9 Lbs.**
    - **Max----------20.3 Lbs.**

- **After 100 Cycles – 4 Position**
  - **Mating**
    - **Min ----------12.5 Lbs.**
    - **Max----------15.7 Lbs.**
  - **Unmating**
    - **Min ---------- 6.8 Lbs.**
    - **Max----------11.7 Lbs.**

- **After 500 Cycles – 8 Position**
  - **Mating**
    - **Min ----------17.8 Lbs.**
    - **Max----------27.8 Lbs.**
  - **Unmating**
    - **Min ---------- 7.8 Lbs.**
    - **Max----------14.8 Lbs.**

- **After 500 Cycles – 4 Position**
  - **Mating**
    - **Min ----------12.9 Lbs.**
    - **Max----------14.6 Lbs.**
  - **Unmating**
    - **Min ---------- 4.4 Lbs.**
    - **Max---------- 6.3 Lbs.**

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

RESULTS Continued

- **After 1000 Cycles – 8 Position**
  - **Mating**
    - **Min ----------14.8 Lbs.**
    - **Max----------24.9 Lbs.**
  - **Unmating**
    - **Min ---------- 9.2 Lbs.**
    - **Max----------12.6 Lbs.**

- **After 1000 Cycles – 4 Position**
  - **Mating**
    - **Min ----------12.1 Lbs.**
    - **Max----------15.2 Lbs.**
  - **Unmating**
    - **Min ---------- 5.2 Lbs.**
    - **Max---------- 9.7 Lbs.**

- **Thermal – 8 Position**
  - **Mating**
    - **Min ----------17.8 Lbs.**
    - **Max----------27.8 Lbs.**
  - **Unmating**
    - **Min ---------- 9.2 Lbs.**
    - **Max----------13.9 Lbs.**

- **Thermal – 4 Position**
  - **Mating**
    - **Min ---------- 7.1 Lbs.**
    - **Max----------10.1 Lbs.**
  - **Unmating**
    - **Min ---------- 3.2 Lbs.**
    - **Max---------- 8.4 Lbs.**

- **Humidity – 8 Position**
  - **Mating**
    - **Min ----------12.4 Lbs.**
    - **Max----------18.1 Lbs.**
  - **Unmating**
    - **Min ---------- 8.8 Lbs.**
    - **Max----------18.0 Lbs.**
- **Humidity – 4 Position**
  - **Mating**
    - **Min ---------- 5.6 Lbs.**
    - **Max---------- 9.2 Lbs.**
  - **Unmating**
    - **Min ---------- 5.6 Lbs.**
    - **Max---------- 8.7 Lbs.**

Insulation Resistance minimums, IR

- **Initial**
  - **Mated---------- 25,000 Meg Ω ---------- Pass**
  - **Unmated ---------- 50,000 Meg Ω**
- **Thermal**
  - **Mated----------100,000 Meg Ω**
  - **Unmated ----------100,000 Meg Ω**

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Part description: Gang RF Board Plug/Jack	

RESULTS Continued

- **Humidity**
  - **Mated----------100,000 Meg Ω**
  - **Unmated ----------100,000 Meg Ω**

Dielectric Withstanding Voltage minimums, DWV

- **Initial**
  - **Breakdown**
    - **Mated ----------3,000 VAC**
    - **Unmated----------2,700 VAC**
  - **DWV**
    - **Mated ----------2,250 VAC**
    - **Unmated----------2,025 VAC**
  - **Working voltage**
    - **Mated ----------750 VAC**
    - **Unmated----------675 VAC**
- **Thermal**
  - **Breakdown**
    - **Mated ----------3,100 VAC**
    - **Unmated----------3,300 VAC**
  - **DWV**
    - **Mated ----------2,325 VAC**
    - **Unmated----------2,475 VAC**
  - **Working voltage**
    - **Mated ----------775 VAC**
    - **Unmated----------825 VAC**
- **Humidity**
  - **Breakdown**
    - **Mated ----------3,100 VAC**
    - **Unmated----------3,100 VAC**
  - **DWV**
    - **Mated ----------2,325 VAC**
    - **Unmated----------2,325 VAC**
  - **Working voltage**
    - **Mated ----------775 VAC**
    - **Unmated----------775 VAC**

LLCR Durability (48 LLCR test points)

- **Initial-Signal ----------9.1 mOhms Max**
- **Initial-Ground ----------1.6 mOhms Max**

- **Durability- Signal, 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**
- **Durability- Ground, 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**

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RESULTS Continued

- **Durability- Signal, 500 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**
- **Durability- Ground, 500 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**

- **Durability- Signal, 1000 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**
- **Durability- Ground, 1000 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 – 100 Cycles - Signal**
  - **<= +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 – 100 Cycles - Ground**
  - **<= +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 – 500 Cycles - Signal**
  - **<= +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**

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RESULTS Continued

- **Thermal – 500 Cycles - Ground**
  - **<= +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 – 1000 Cycles - Signal**
  - **<= +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 – 1000 Cycles - Ground**
  - **<= +5.0 mOhms ---------- 40 Points ---------- Stable**
  - **+5.1 to +10.0 mOhms ---------- 8 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 – 100 Cycles - Signal**
  - **<= +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**

- **Humidity – 100 Cycles - Ground**
  - **<= +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**

- **Humidity – 500 Cycles - Signal**
  - **<= +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**

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Part description: Gang RF Board Plug/Jack	

RESULTS Continued

- **Humidity – 500 Cycles - Ground**
  - **<= +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**

- **Humidity – 1000 Cycles - Signal**
  - **<= +5.0 mOhms ---------- 47 Points ---------- Stable**
  - **+5.1 to +10.0 mOhms ---------- 1 Point ---------- 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 – 1000 Cycles - Ground**
  - **<= +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**

LLCR Gas Tight (32 LLCR test points)

- **Initial- Signal ---------- 8.6 mOhms Max**
- **Initial- Ground ---------- 1.4 mOhms Max**

- **Gas-Tight- Signal**
  - **<= +5.0 mOhms ---------- 32 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**

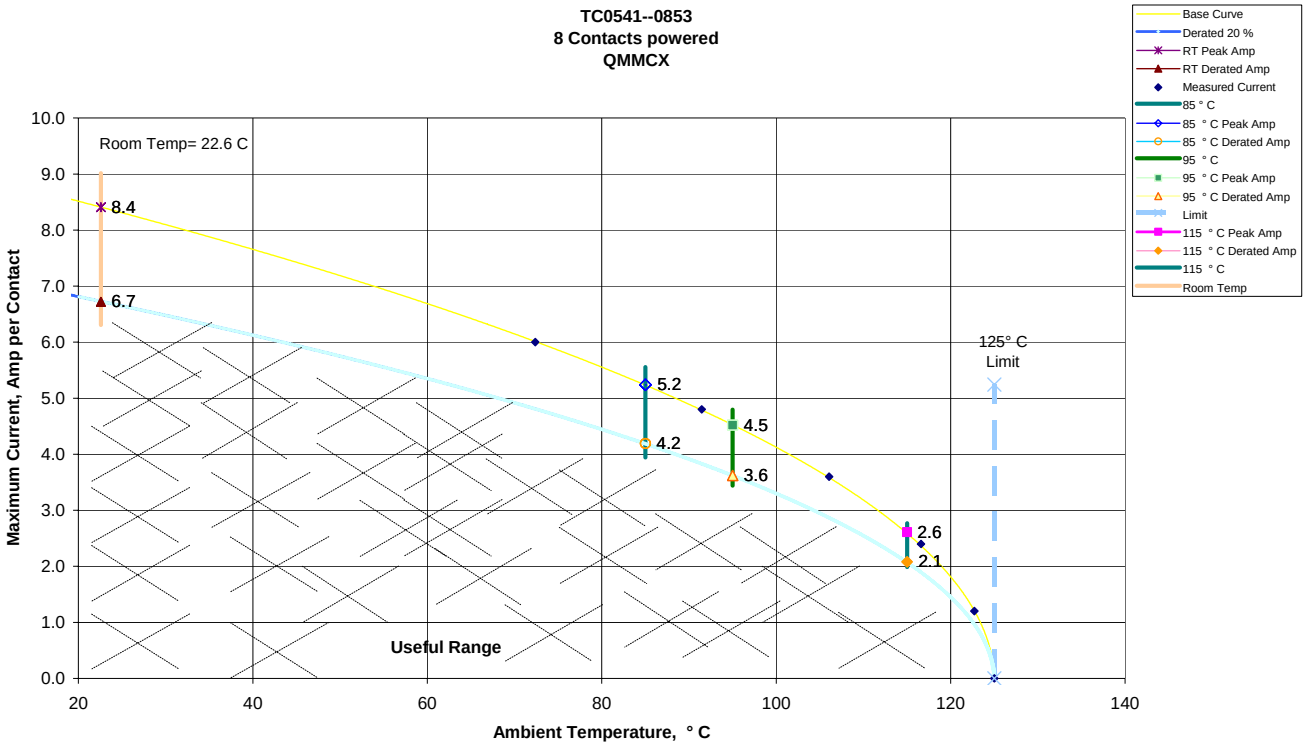
- **Gas-Tight- Ground**
  - **<= +5.0 mOhms ---------- 32 Points ---------- Stable**
  - **+5.1 to +10.0 mOhms ---------- 0 Points ---------- Minor**
  - **+10.1 to +15.0 mOhms ---------- 0 Points ---------- Acceptable**
  - **+15.1 to +50.0 mOhms ---------- 0 Points ---------- Marginal**
  - **+50.1 to +2000 mOhms ---------- 0 Points ---------- Unstable**
  - **>+2000 mOhms ---------- 0 Points ---------- Open Failure**

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES

TEMPERATURE RISE (Current Carrying Capacity, CCC):

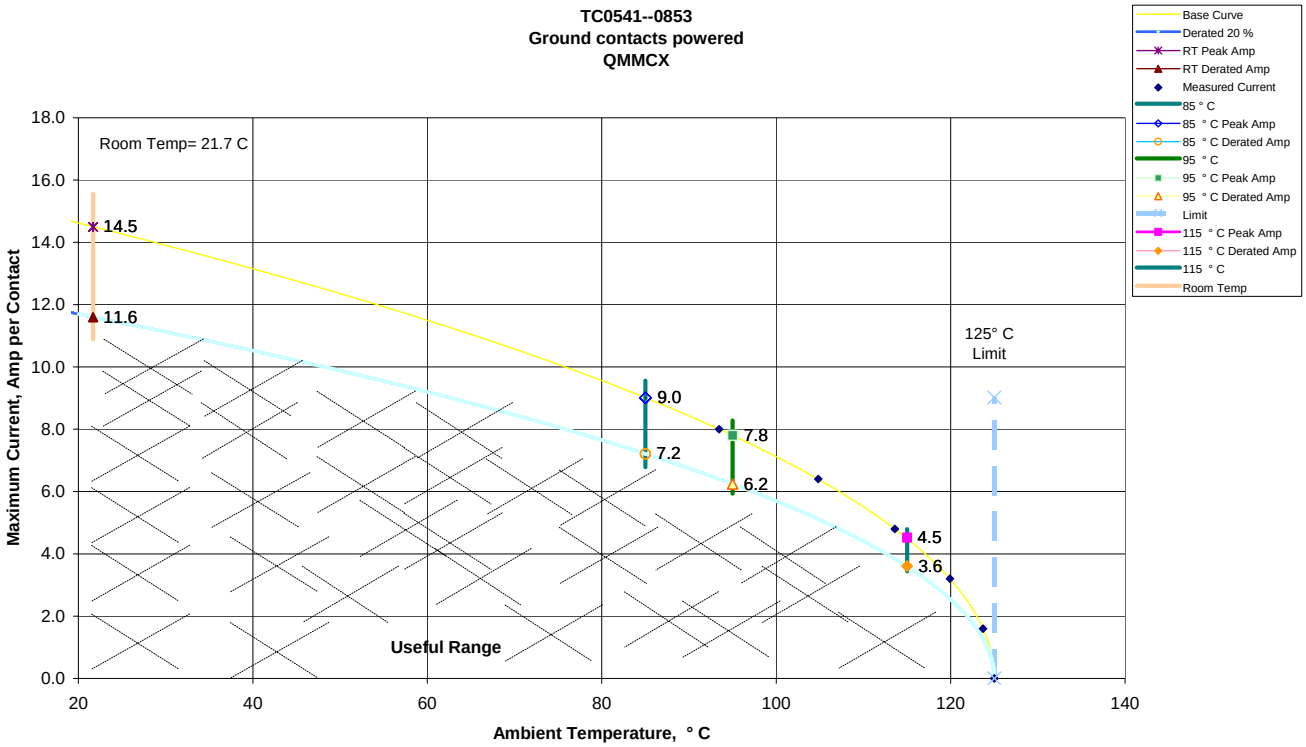
1) High quality thermocouples whose temperature slopes track one another were used for temperature monitoring.
2) The thermocouples were placed at a location to sense the maximum temperature generated during testing.
3) Temperature readings recorded are those for which three successive readings, 15 minutes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



Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

b. Linear configuration with eight adjacent ground contacts powered



MATING/UNMATING:

8 Position GRF1

	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	315.0	19.69	183.0	11.44	320.8	20.05	190.1	11.88
Maximum	*424.5*	*26.5*	*362.1*	*22.6*	*500.8*	*31.3*	*324.0*	*20.3*
Average	***349.9***	***21.9***	***273.8***	***17.1***	***390.0***	***24.4***	***258.6***	***16.2***
	After 500 Cycles				After 1000 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)
Minimum	284.0	17.8	125.1	7.8	236.8	14.8	146.7	9.2
Maximum	*444.8*	*27.8*	*236.5*	*14.8*	*397.9*	*24.9*	*201.9*	*12.6*
Average	***336.9***	***21.1***	***174.8***	***10.9***	***297.7***	***18.6***	***178.9***	***11.2***
	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	284.0	17.8	0.3	9.2	197.8	12.4	140.2	8.8
Maximum	*444.8*	*27.8*	*38656.0*	*13.9*	*290.2*	*18.1*	*287.6*	*18.0*
Average	***379.7***	***23.7***	***5625.1***	***10.9***	***252.3***	***15.8***	***215.8***	***13.5***

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

4 Position GRF1

	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	163.8	10.24	71.3	4.46	199.7	12.48	108.8	6.80
Maximum	*212.2*	*13.3*	*169.0*	*10.6*	*250.4*	*15.7*	*187.8*	*11.7*
Average	***189.2***	***11.8***	***131.7***	***8.2***	***236.0***	***14.8***	***138.8***	***8.7***
	After 500 Cycles				After 1000 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)
Minimum	205.9	12.9	70.1	4.4	192.9	12.1	83.2	5.2
Maximum	*234.4*	*14.6*	*101.3*	*6.3*	*243.8*	*15.2*	*155.4*	*9.7*
Average	***223.4***	***14.0***	***86.0***	***5.4***	***219.1***	***13.7***	***116.9***	***7.3***
	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	114.2	7.1	51.7	3.2	89.3	5.6	88.8	5.6
Maximum	*162.3*	*10.1*	*135.0*	*8.4*	*147.6*	*9.2*	*139.5*	*8.7*
Average	***129.7***	***8.1***	***85.6***	***5.4***	***118.3***	***7.4***	***102.6***	***6.4***

INSULATION RESISTANCE (IR):

	Initial, Meg Ohms		**Thermal, Meg Ohms**		**Humidity, Meg Ohms**	
	Mated	**Unmated**	**Mated**	**Unmated**	**Mated**	**Unmated**
	Insulation Resistance	**Insulation Resistance**	**Insulation Resistance**	**Insulation Resistance**	**Insulation Resistance**	**Insulation Resistance**
Average	37500	50000	100000	100000	100000	100000
Min	25000	50000	100000	100000	100000	100000
Max	50000	50000	100000	100000	100000	100000

DATA SUMMARIES Continued

DIELECTRIC WITHSTANDING VOLTAGE (DWV):

	Initial, VAC Mated			Initial, VAC Unmated		
	Breakdown Voltage	DWV	Working Voltage	Breakdown Voltage	DWV	Working Voltage
Average	3050	2288	763	2900	2175	725
Min	3000	2250	750	2700	2025	675
Max	3100	2325	775	3100	2325	775

	Thermal, VAC Mated			Thermal, VAC Unmated		
	Breakdown Voltage	DWV	Working Voltage	Breakdown Voltage	DWV	Working Voltage
Average	3200	2400	800	3350	2513	838
Min	3100	2325	775	3300	2475	825
Max	3300	2475	825	3400	2550	850

	Humidity, VAC Mated			Humidity, VAC Unmated		
	Breakdown Voltage	DWV	Working Voltage	Breakdown Voltage	DWV	Working Voltage
Average	3100	2325	775	3150	2363	788
Min	3100	2325	775	3100	2325	775
Max	3100	2325	775	3200	2400	800

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

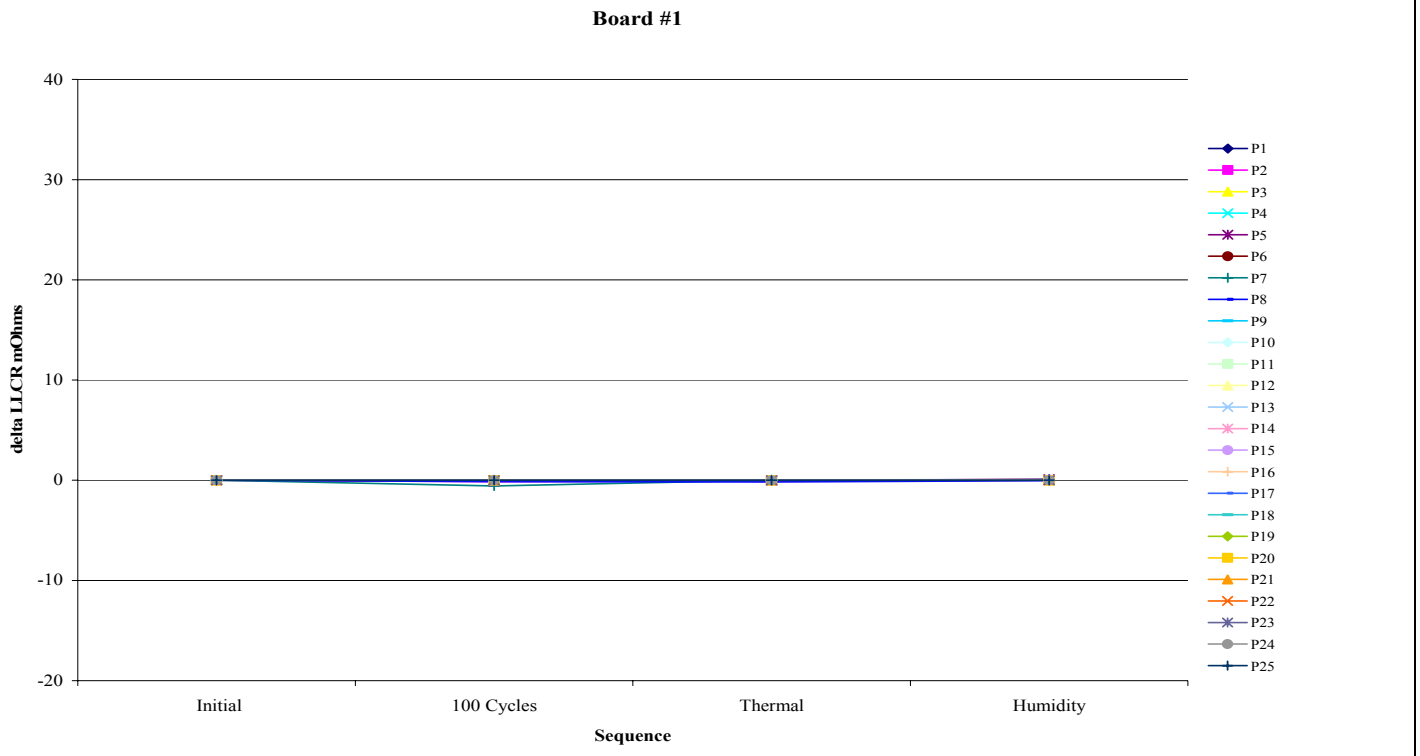
DATA SUMMARIES Continued

LLCR:

1) A total of 48 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

100 Cycle - Signal:

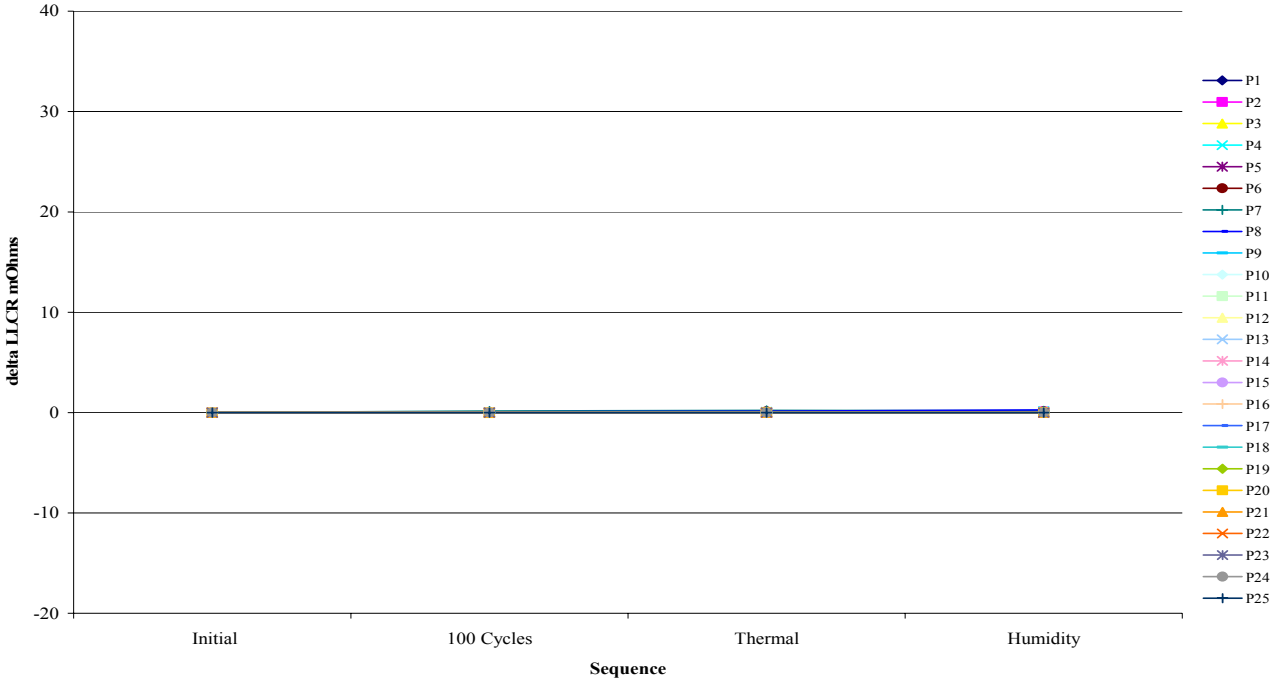
Date	Oct. 19 2005	Oct. 22 2005	Oct. 31 2005	Nov. 10 2005
Room Temp C	23	24	23	23
RH	34%	42%	30%	29%
Name	Troy Cook	Troy Cook	Troy Cook	Troy Cook
mOhm values	**Actual Initial**	**Delta 100 Cycles**	**Delta Thermal**	**Delta Humidity**
Average	7.7	0.1	0.1	0.1
St. Dev.	0.7	0.2	0.2	0.2
Min	6.3	-0.6	-0.2	-0.1
Max	9.0	1.4	0.8	0.8
Count	48	48	48	48



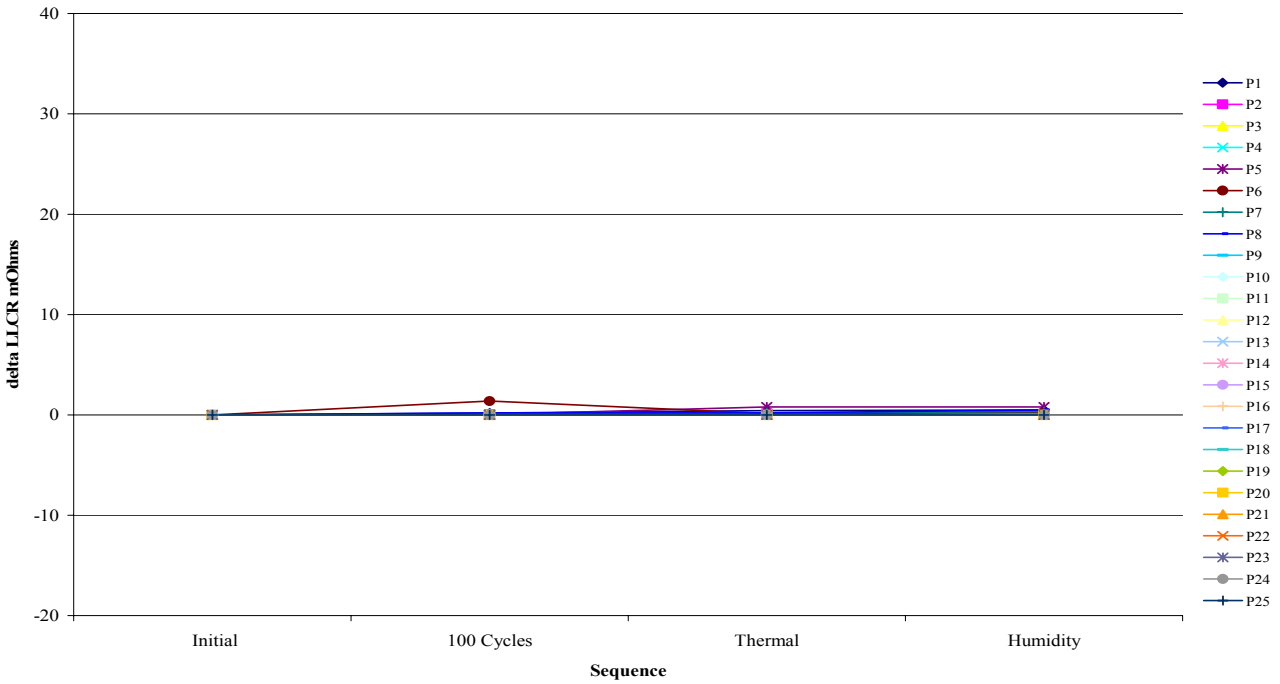
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #2



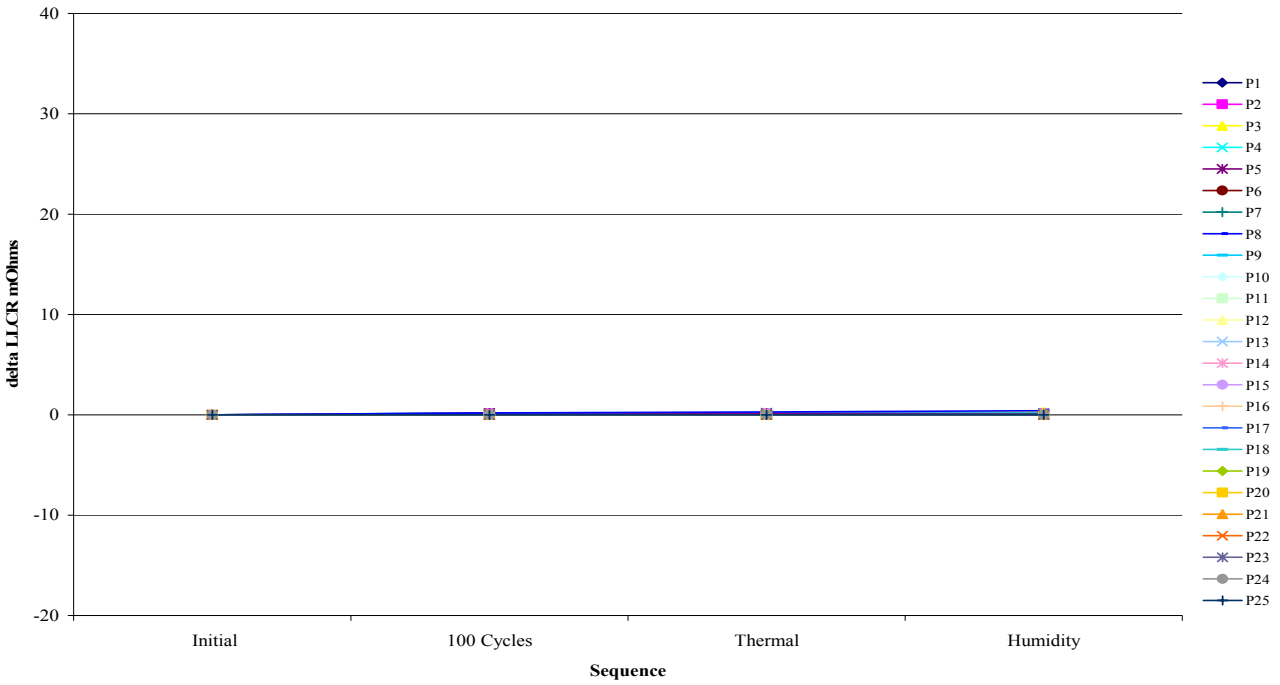
Board #3



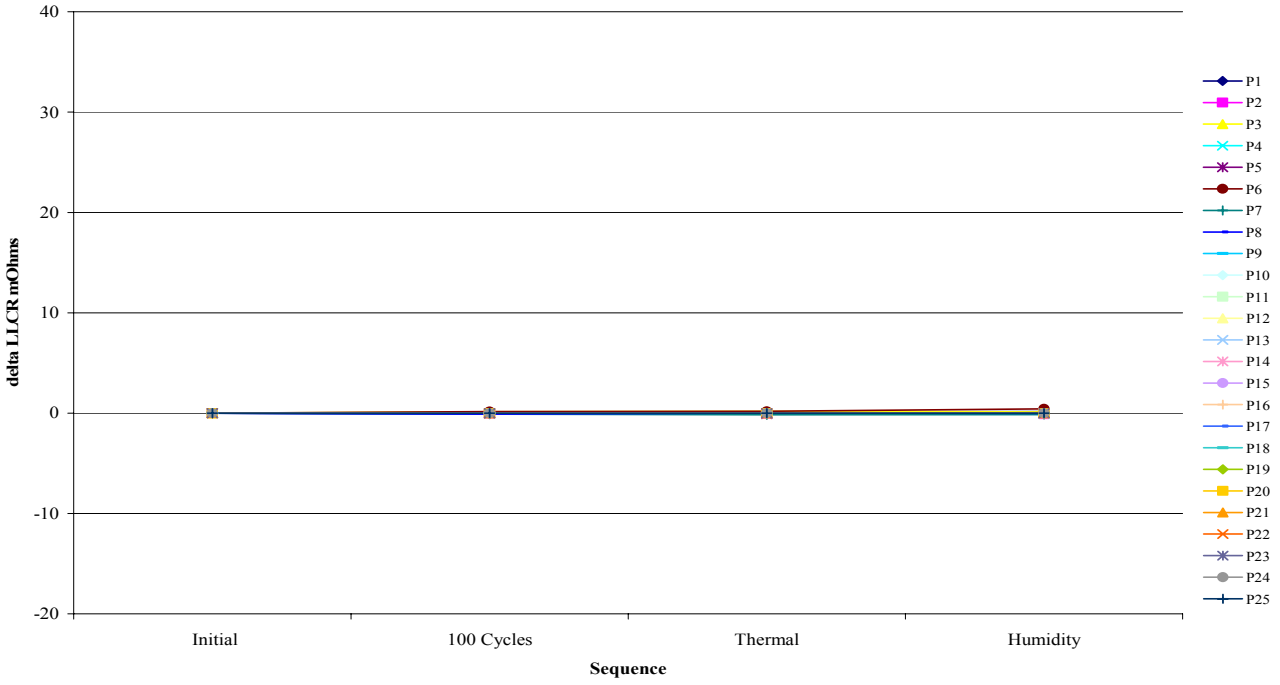
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #4

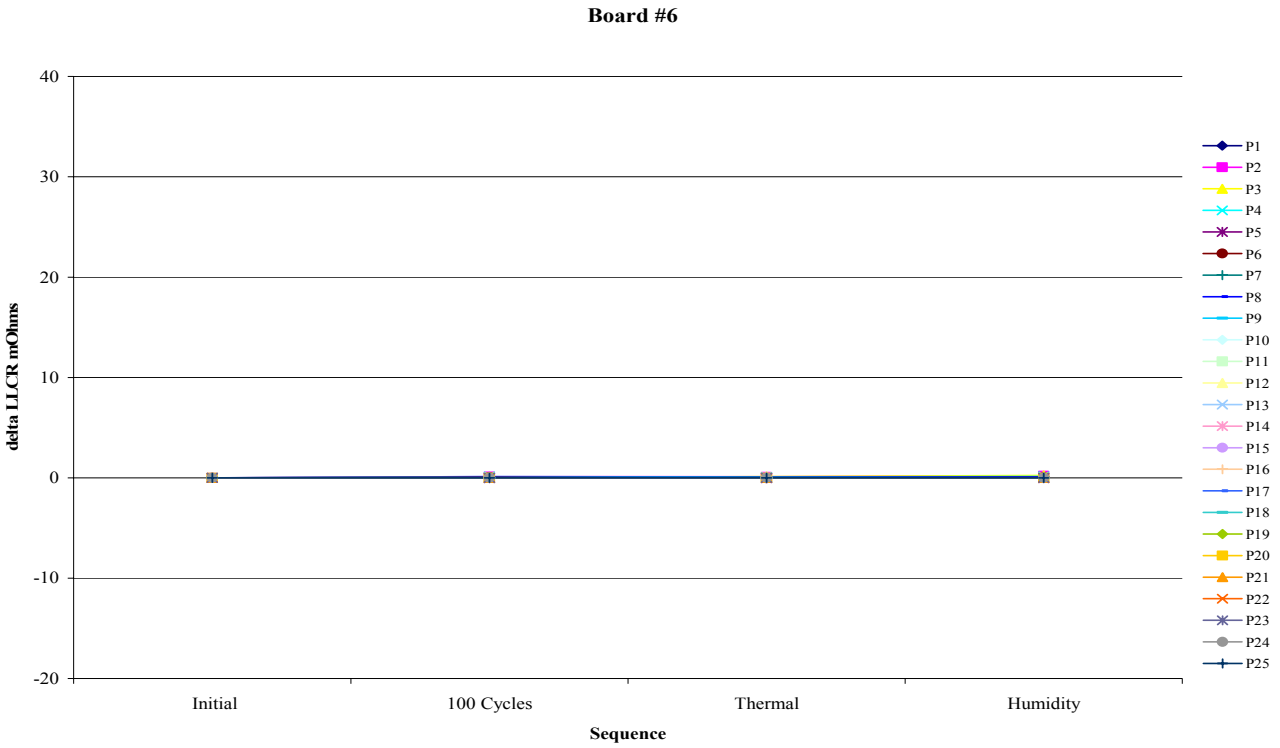


Board #5



Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued



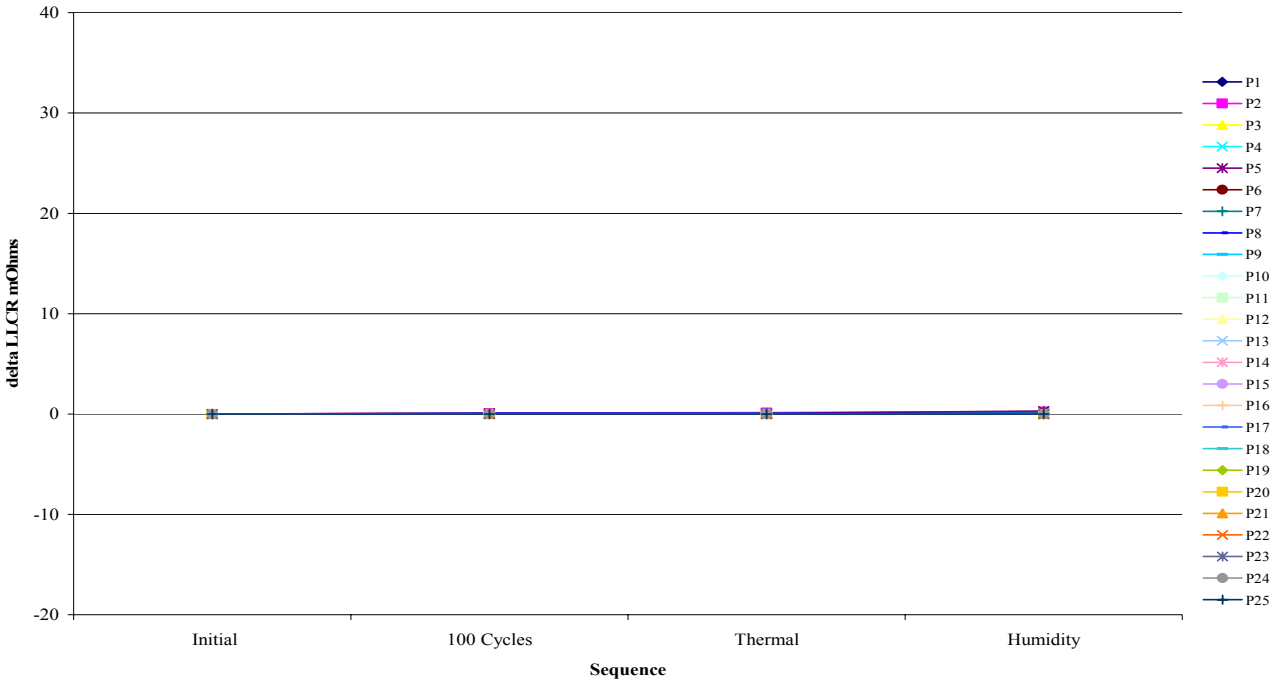
DATA SUMMARIES Continued

100 Cycle - Ground:

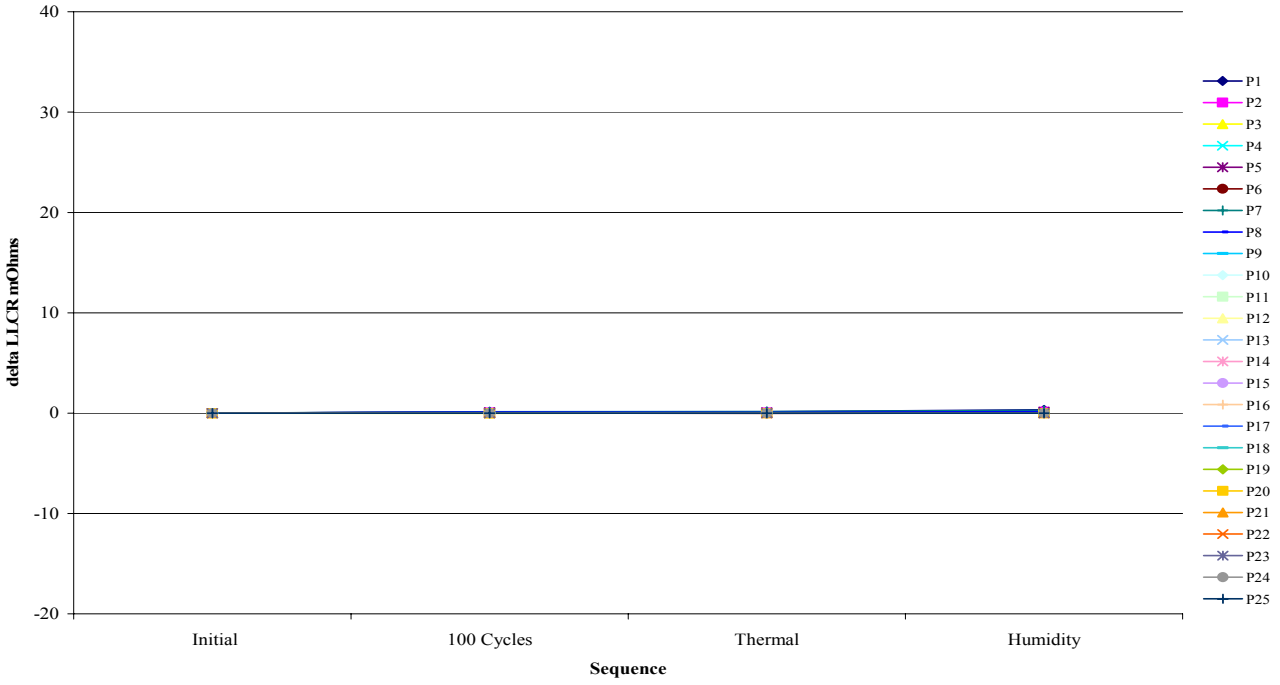
Date	Oct. 19 2005	Oct. 22 2005	Oct. 31 2005	Nov. 10 2005
Room Temp C	23	24	23	23
RH	33%	42%	30%	32%
Name	Troy Cook	Troy Cook	Troy Cook	Troy Cook
mOhm values	**Actual Initial**	**Delta 100 Cycles**	**Delta Thermal**	**Delta Humidity**
Average	1.3	0.0	0.1	0.1
St. Dev.	0.1	0.1	0.0	0.1
Min	1.2	-0.2	0.0	-0.1
Max	1.5	0.1	0.2	0.4
Count	48	48	48	48

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

Board #1



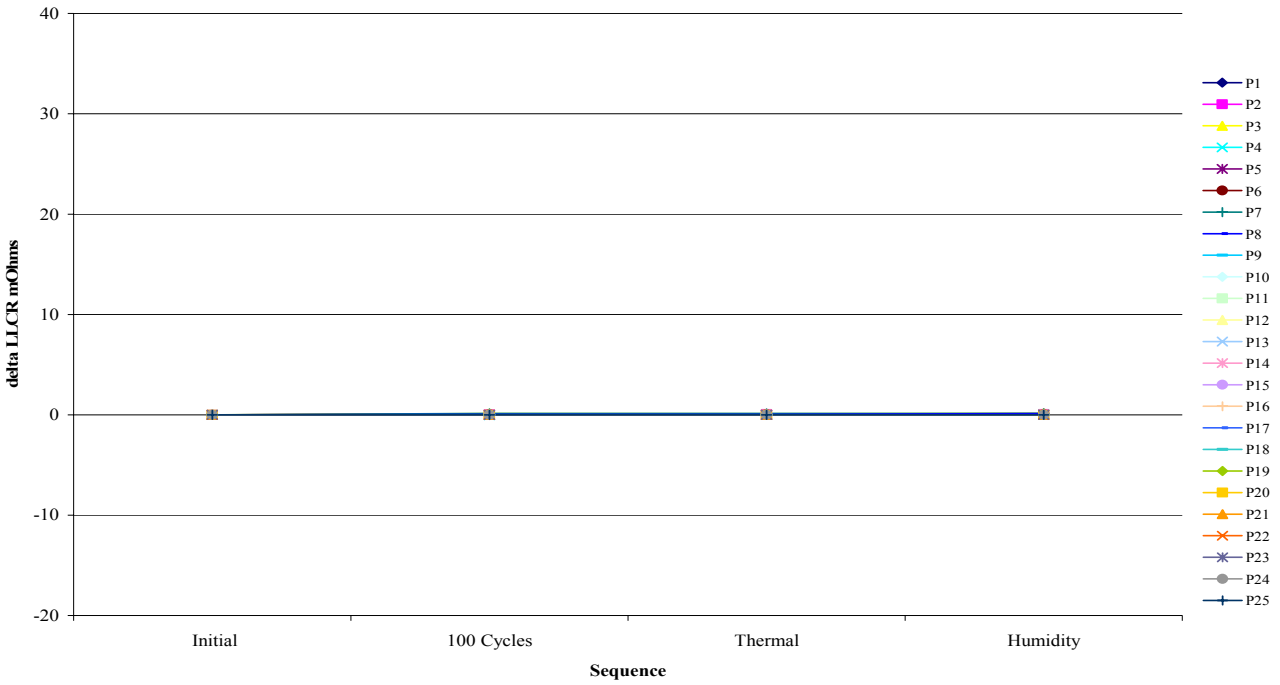
Board #2



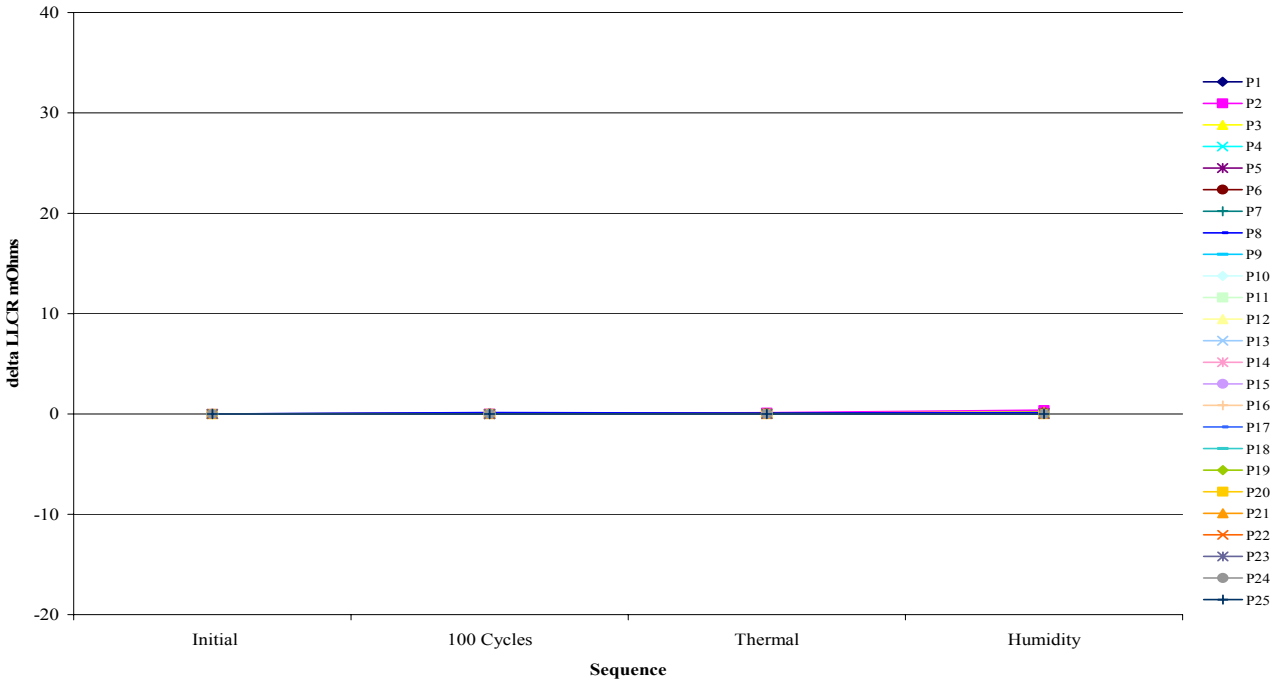
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #3



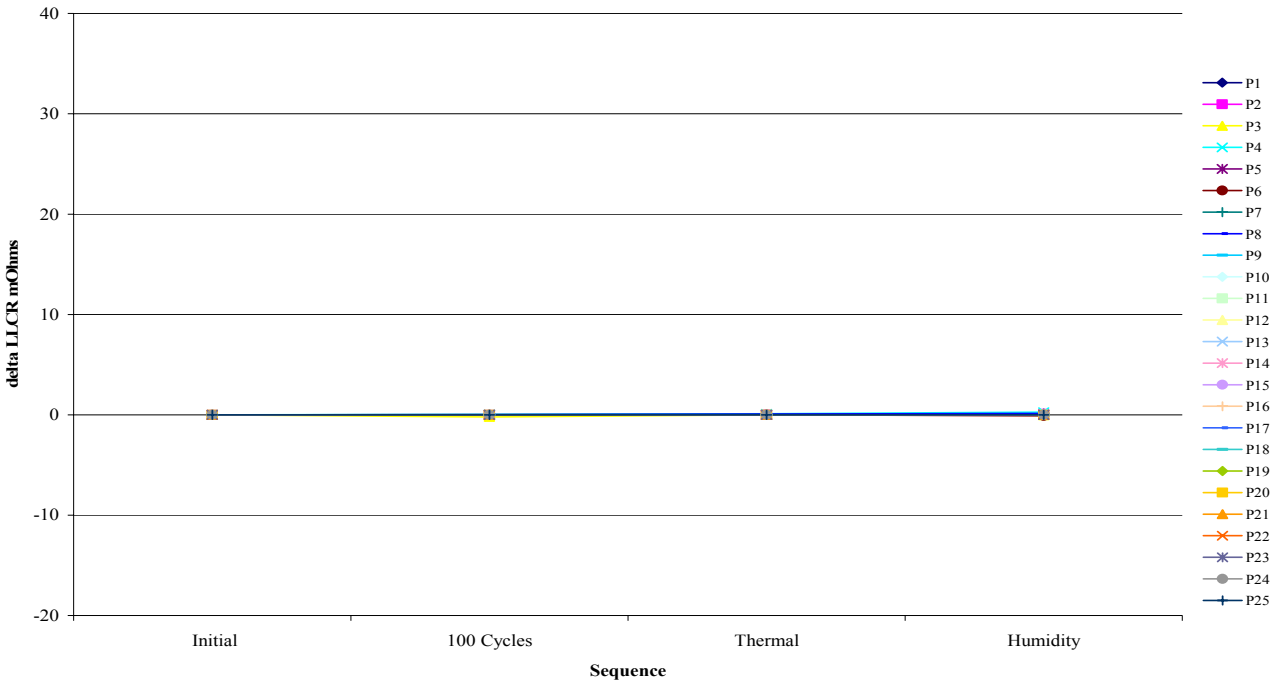
Board #4



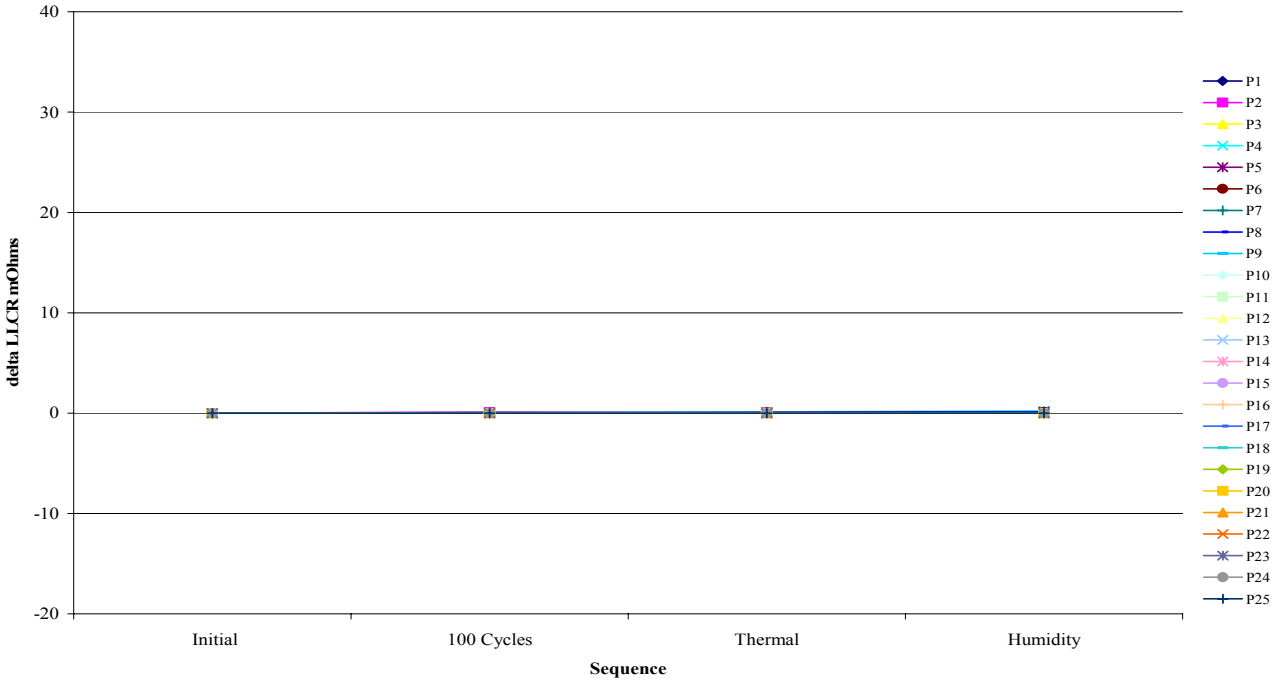
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #5



Board #6

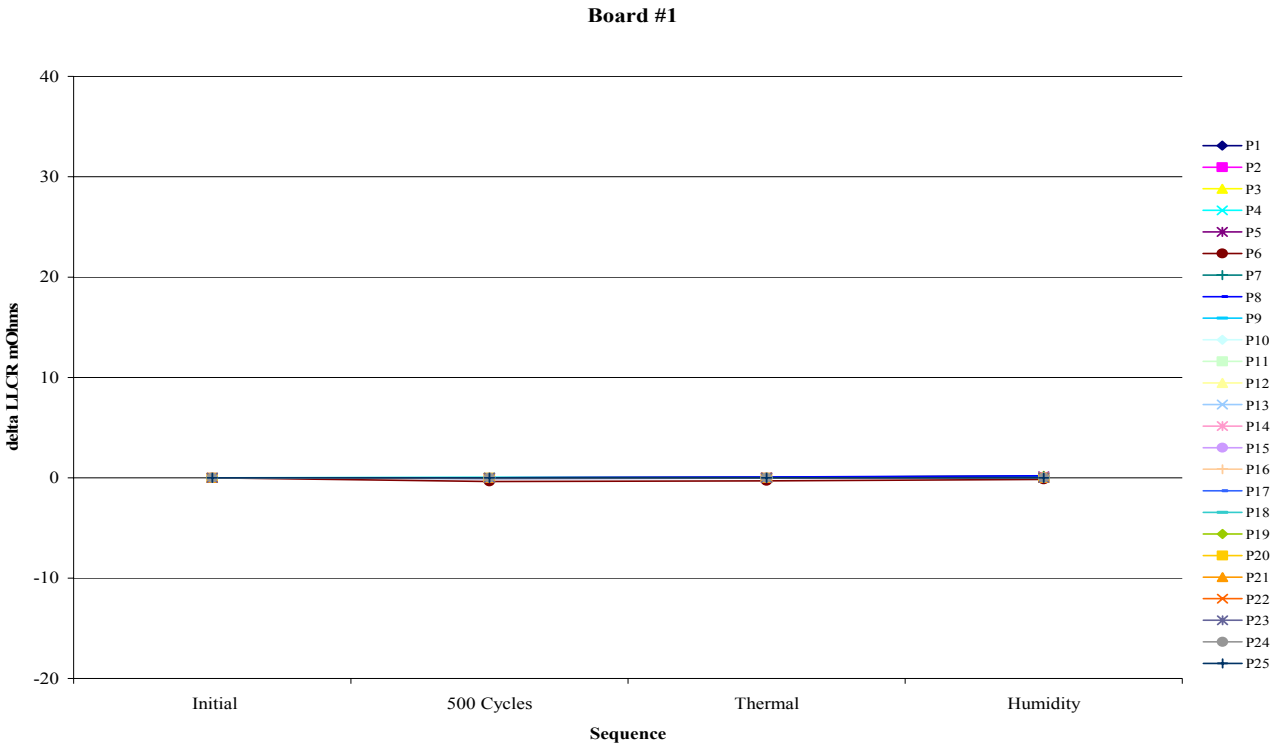


Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

500 Cycle - Signal:

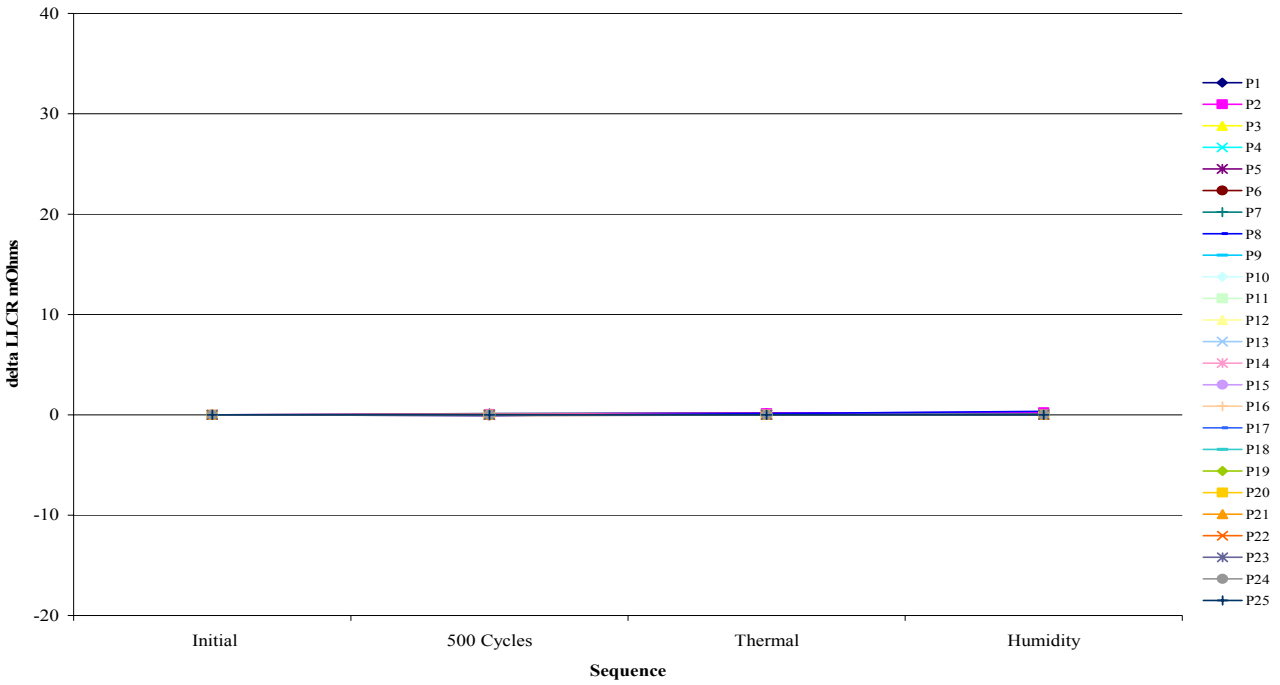
	Oct. 19 2005	Oct. 22 2005	Oct. 31 2005	Nov. 10 2005
Date				
Room Temp C	23	24	23	24
RH	35%	42%	29%	30%
Name	Troy Cook	Troy Cook	Troy Cook	Troy Cook
mOhm values	**Actual Initial**	**Delta 500 Cycles**	**Delta Thermal**	**Delta Humidity**
Average	8.0	0.0	0.1	0.1
St. Dev.	0.5	0.1	0.1	0.1
Min	7.0	-0.4	-0.3	-0.2
Max	9.1	0.2	0.4	0.4
Count	48	48	48	48



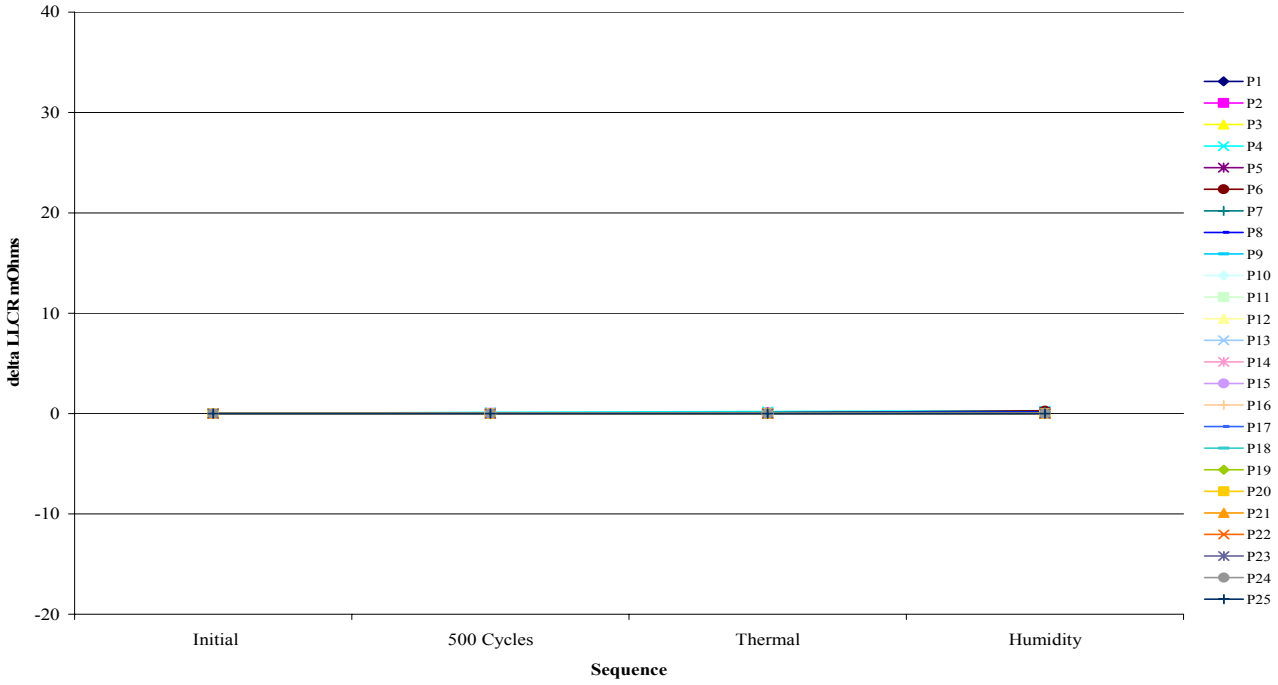
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #2



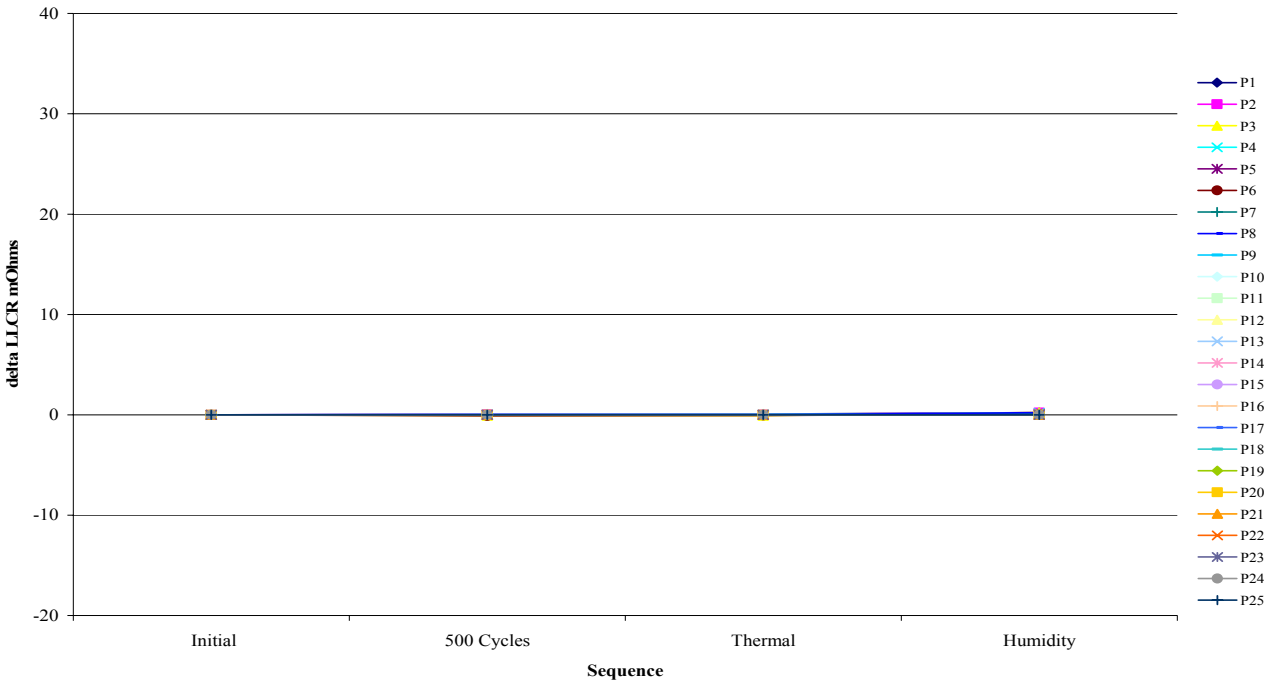
Board #3



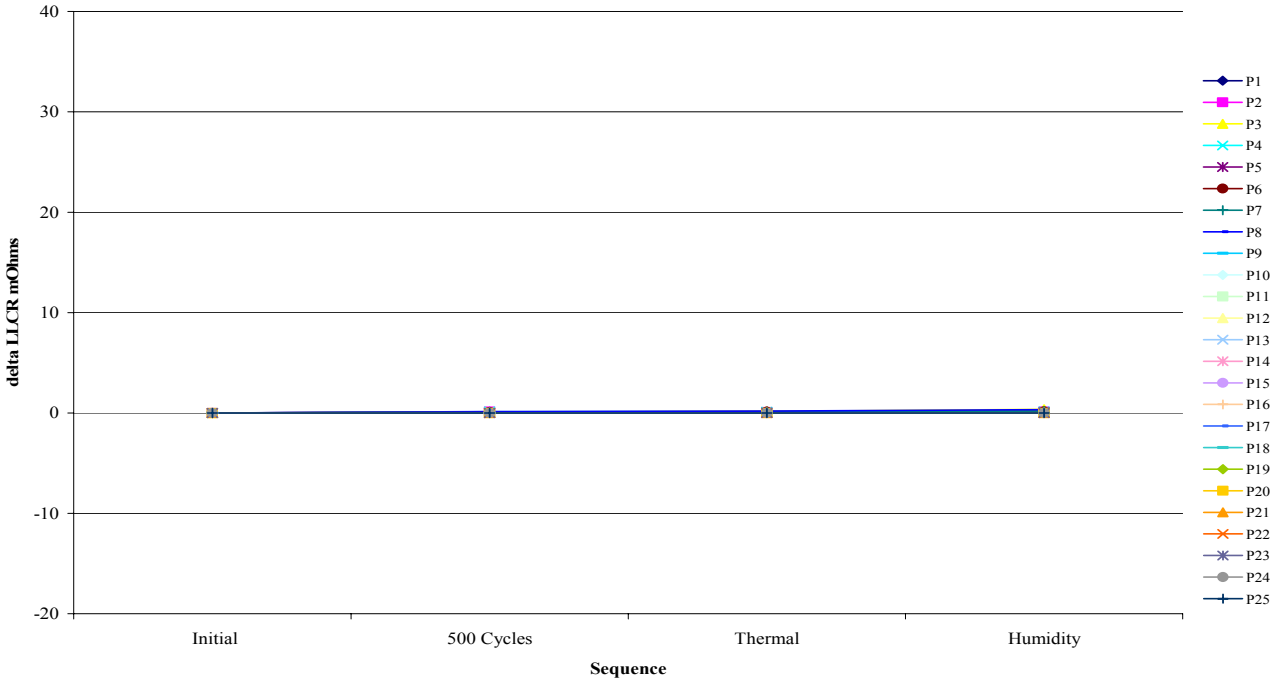
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #4

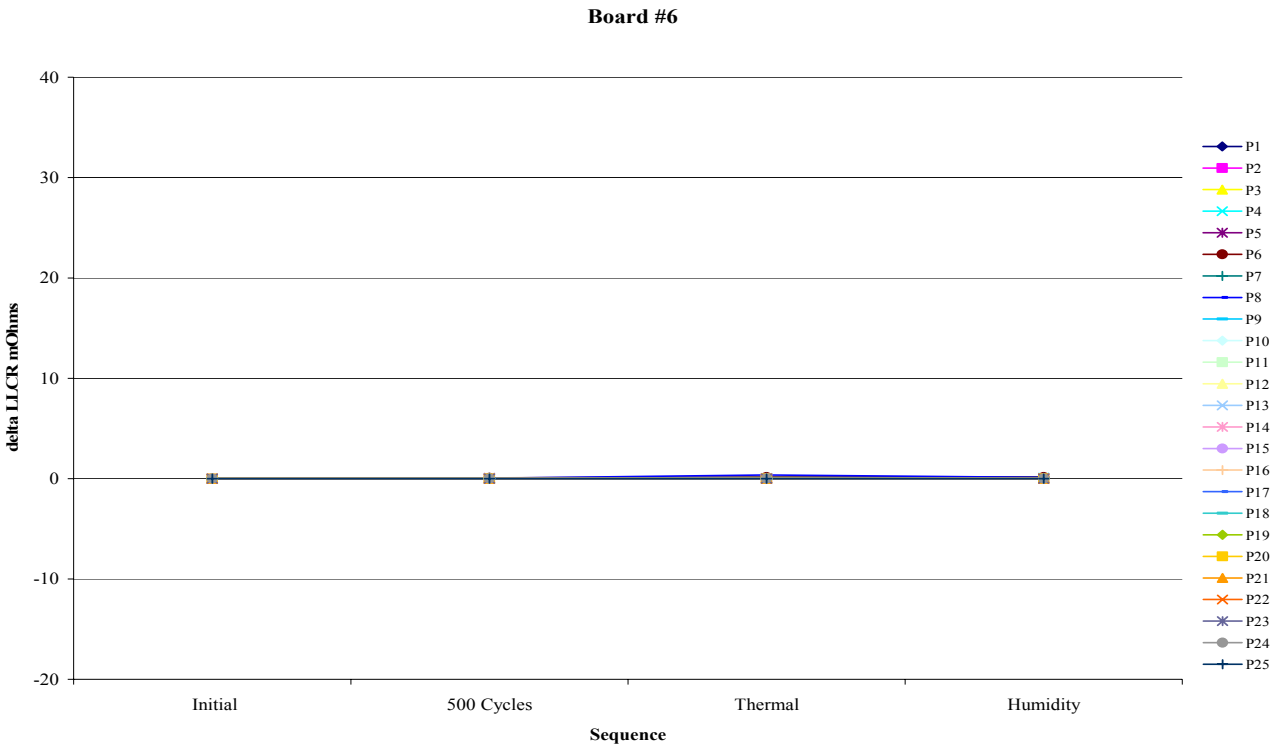


Board #5



Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued



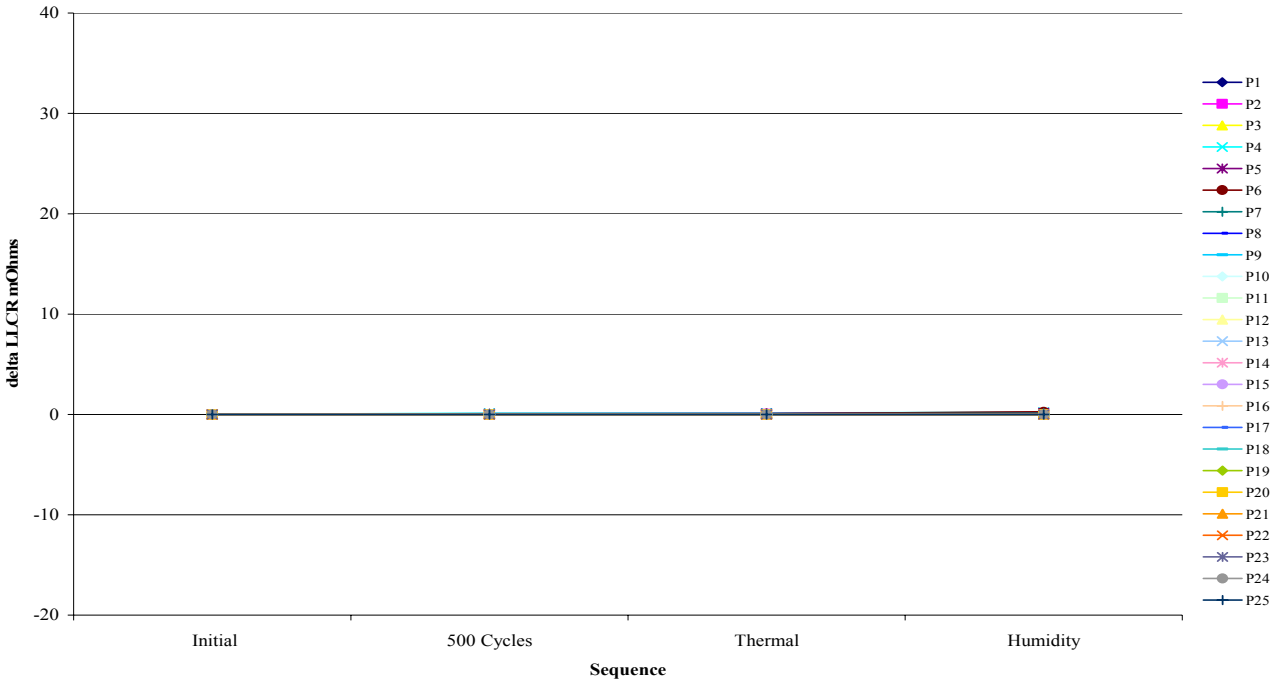
500 Cycle - Ground:

Date	Oct. 19 2005	Oct. 22 2005	Oct. 31 2005	Nov. 10 2005
Room Temp C	23	24	23	24
RH	35%	42%	30%	29%
Name	Troy Cook	Troy Cook	Troy Cook	Troy Cook
mOhm values	**Actual Initial**	**Delta 500 Cycles**	**Delta Thermal**	**Delta Humidity**
Average	1.4	0.1	0.1	0.1
St. Dev.	0.1	0.1	0.1	0.1
Min	1.3	-0.1	-0.1	-0.1
Max	1.6	0.3	0.2	0.3
Count	48	48	48	48

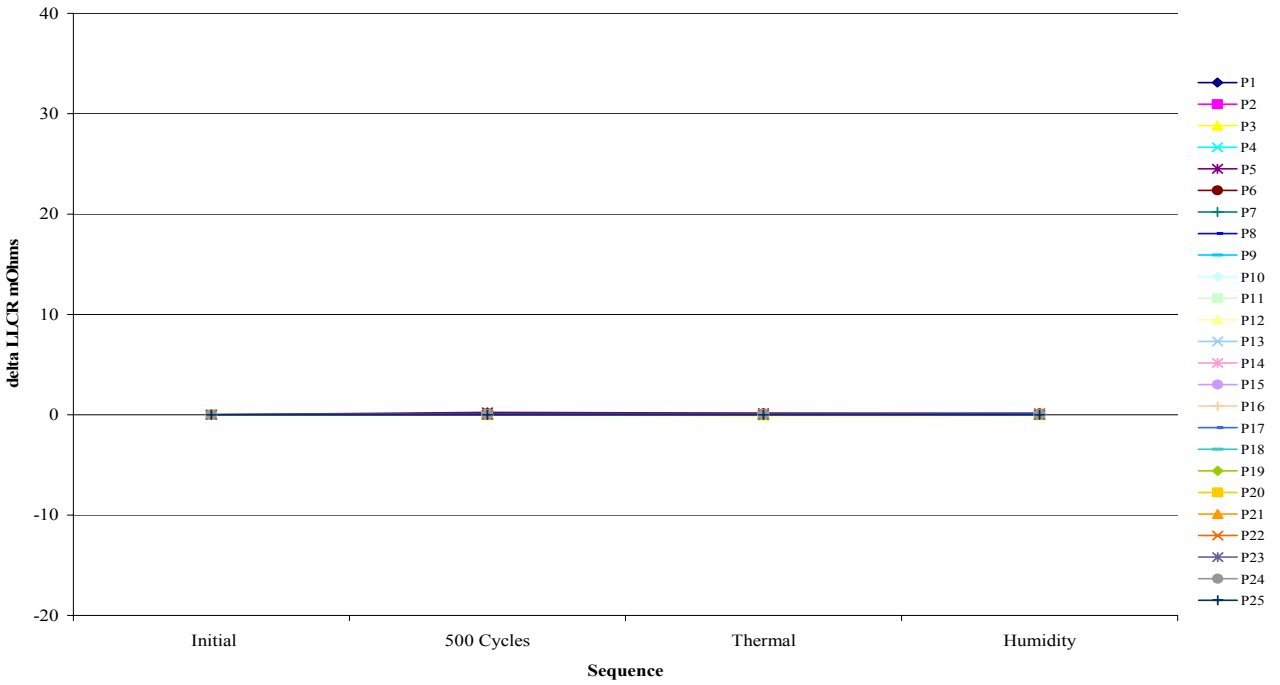
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #1



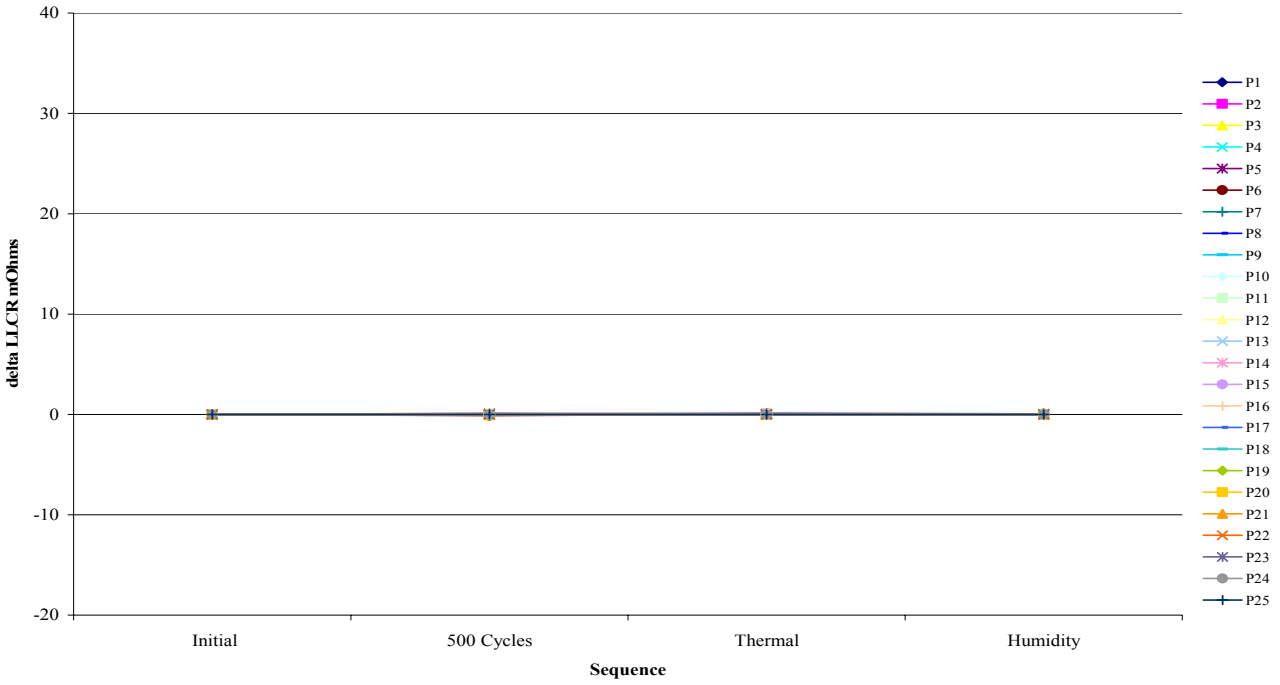
Board #2



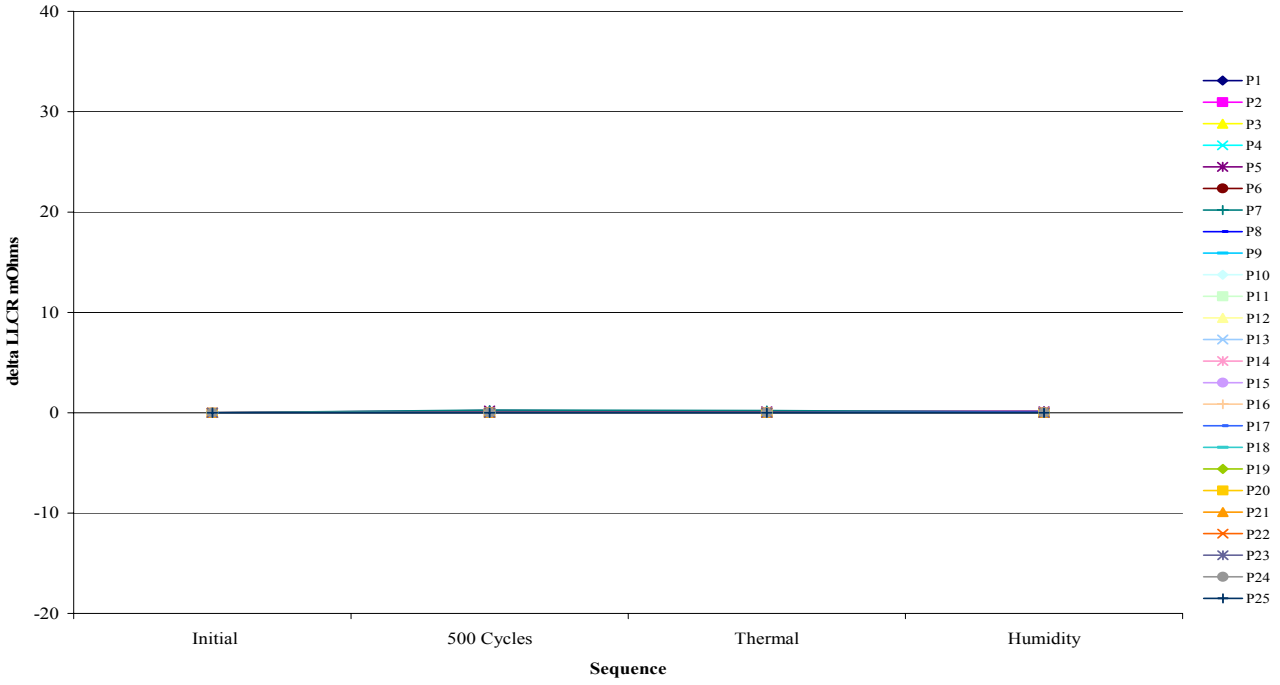
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #3



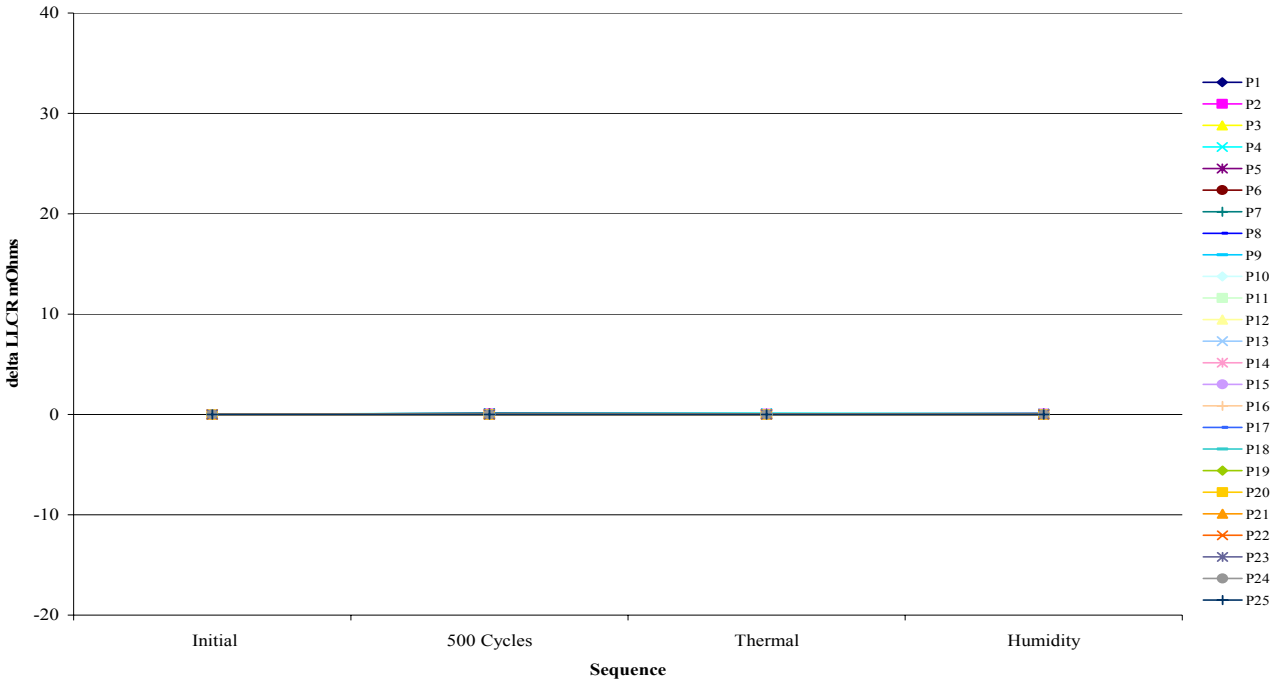
Board #4



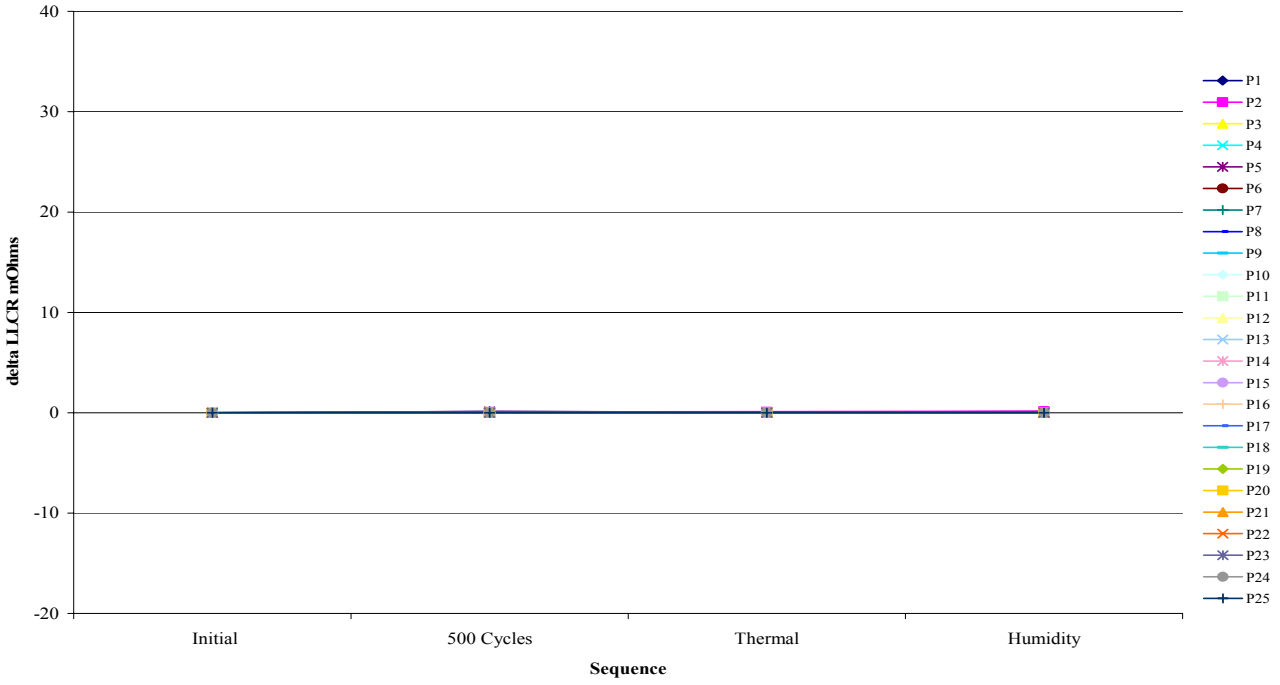
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #5



Board #6

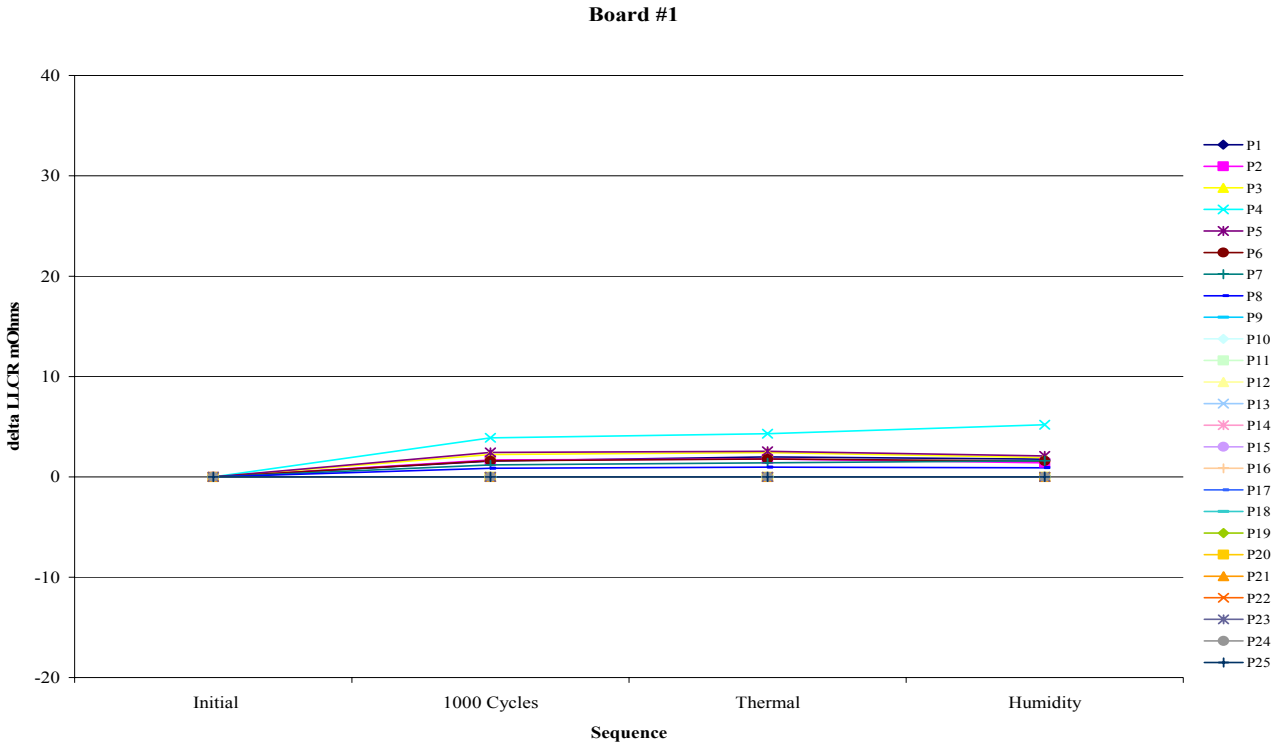


Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

1000 Cycle – Signal:

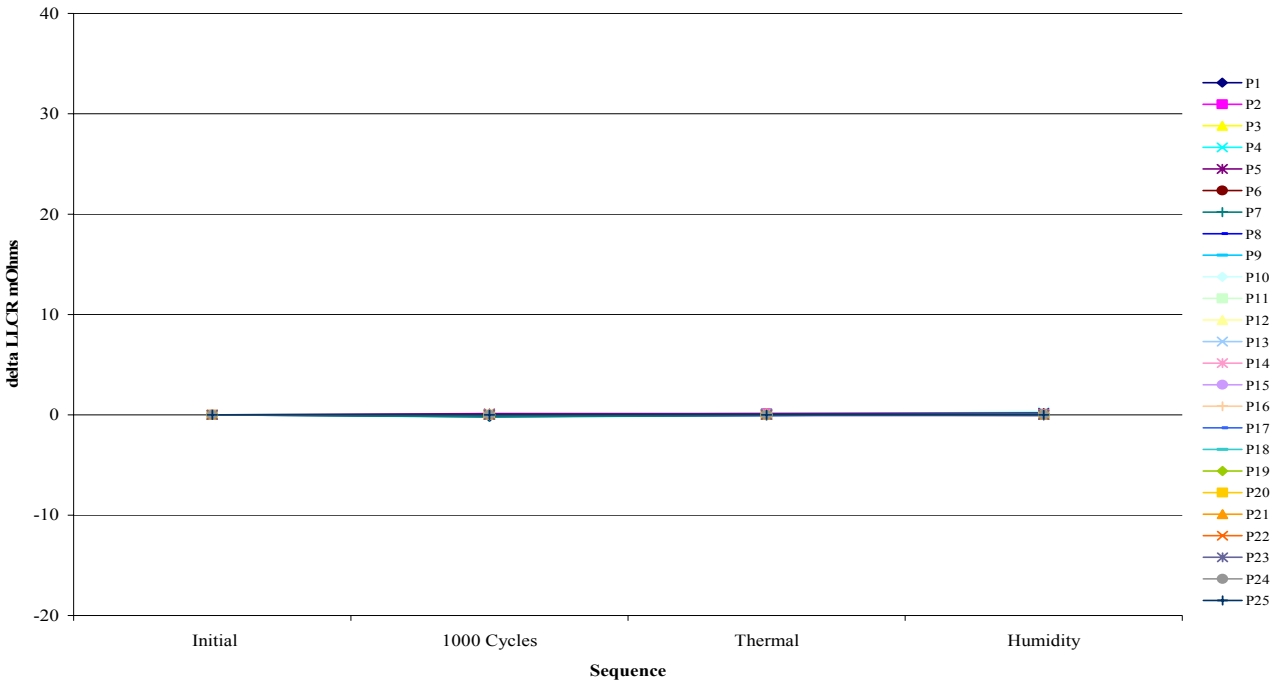
Date	Oct. 19 2005	Oct. 22 2005	Oct. 31 2005	Nov. 10 2005
Room Temp C	23	24	23	23
RH	37%	42%	26%	32%
Name	Troy Cook	Troy Cook	Troy Cook	Troy Cook
mOhm values	**Actual Initial**	**Delta 1000 Cycles**	**Delta Thermal**	**Delta Humidity**
Average	7.4	0.3	0.4	0.4
St. Dev.	0.9	0.8	0.9	0.9
Min	5.3	-0.2	-0.1	-0.1
Max	8.6	3.9	4.3	5.2
Count	48	48	48	48



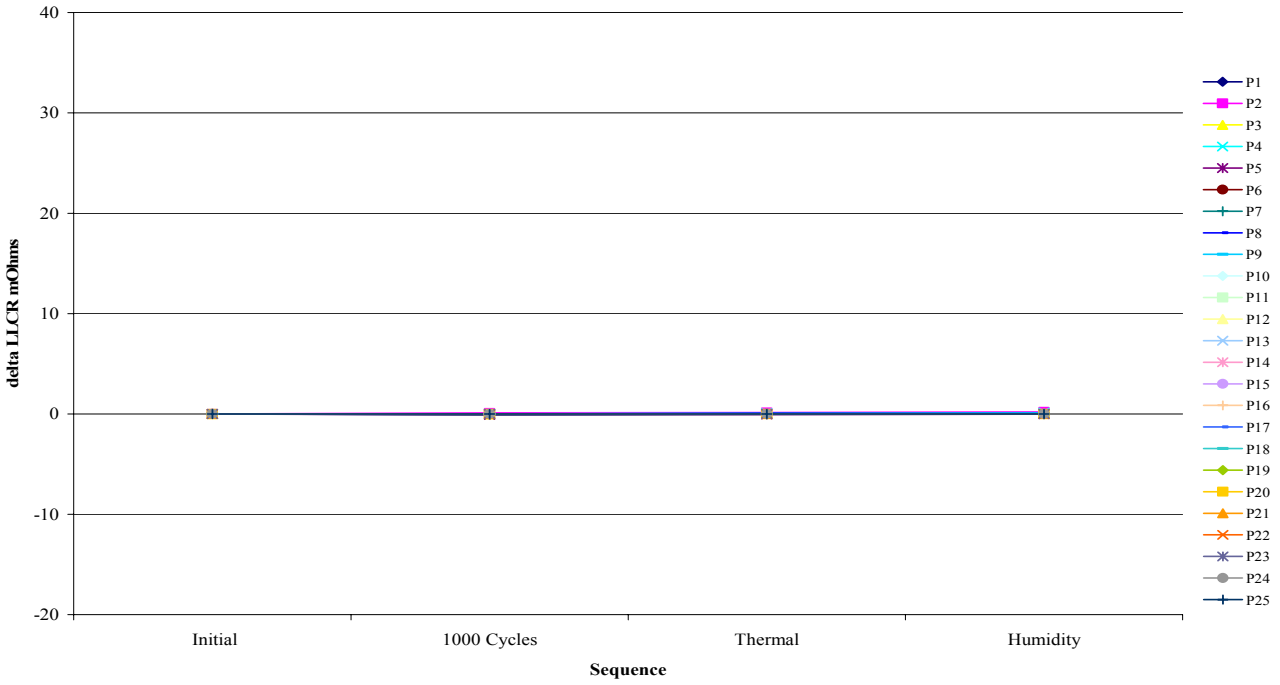
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #2



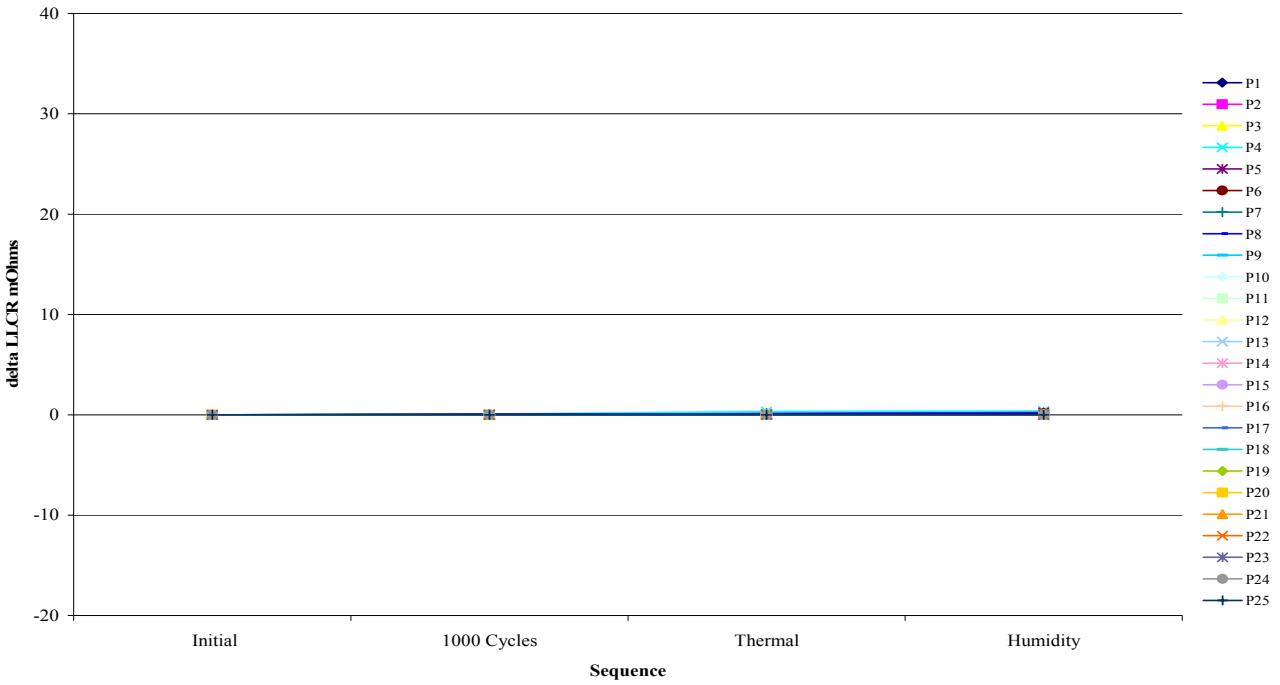
Board #3



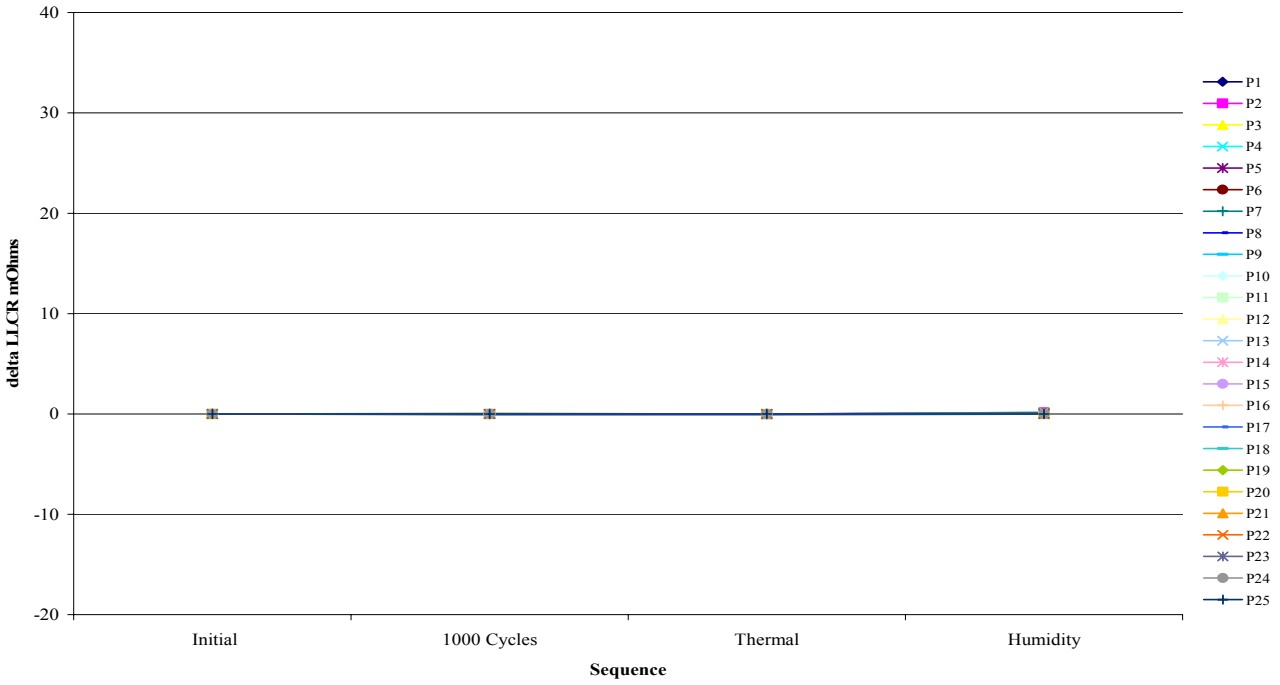
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #4

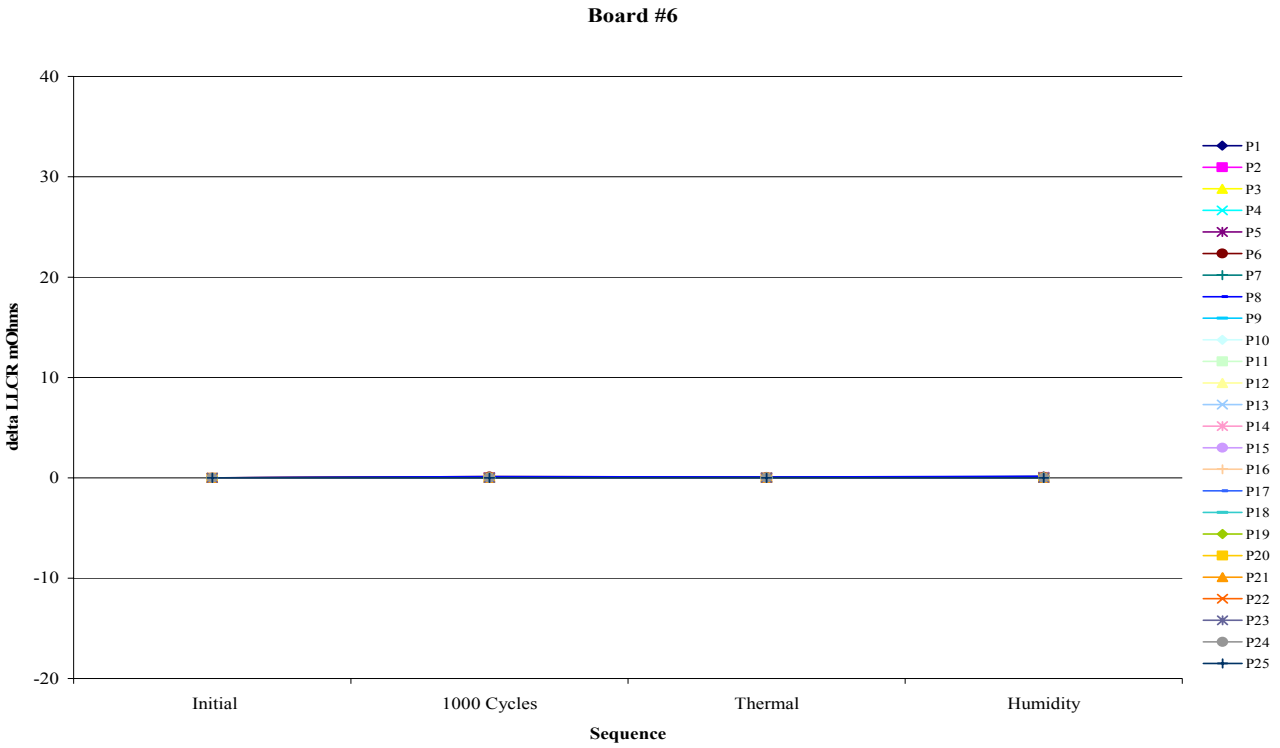


Board #5



Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued



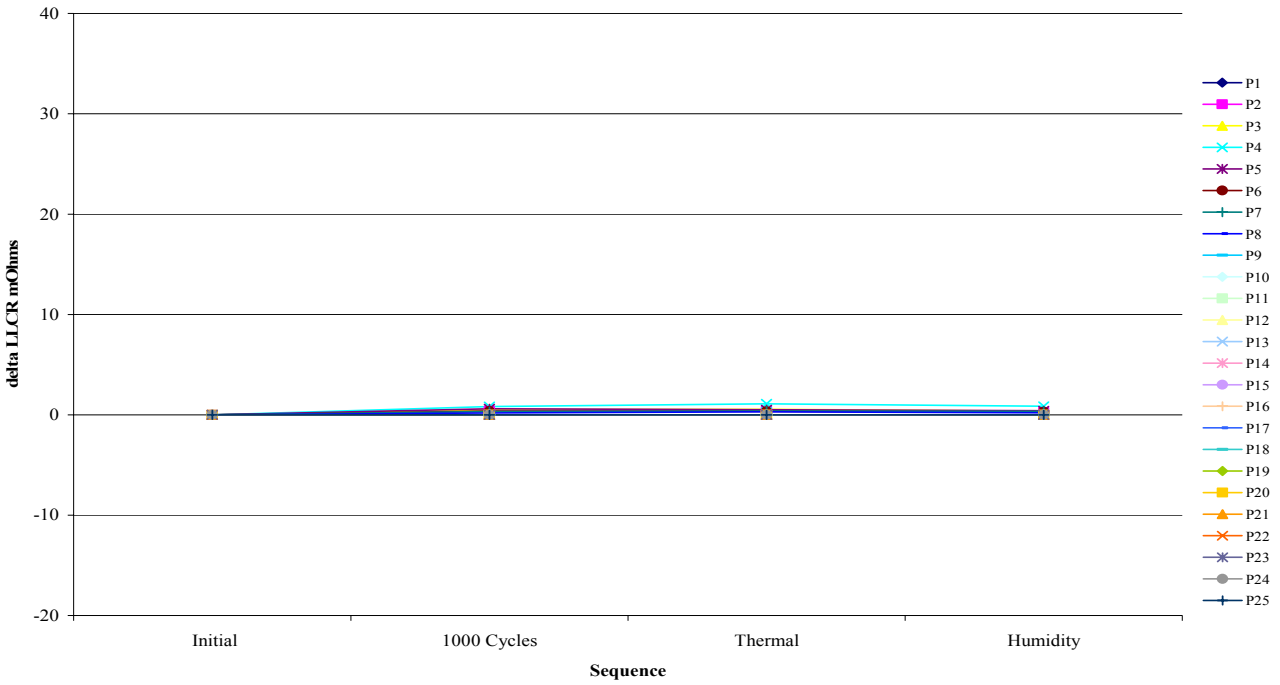
1000 Cycle – Ground:

Date	Oct. 19 2005	Oct. 22 2005	Oct. 31 2005	Nov. 10 2005
Room Temp C	23	24	23	24
RH	36%	42%	26%	33%
Name	Troy Cook	Troy Cook	Troy Cook	Troy Cook
mOhm values	**Actual Initial**	**Delta 1000 Cycles**	**Delta Thermal**	**Delta Humidity**
Average	1.4	0.1	1.3	0.1
St. Dev.	0.1	0.2	2.5	0.2
Min	0.9	0.0	0.0	0.0
Max	1.6	0.8	7.1	0.8
Count	48	48	48	48

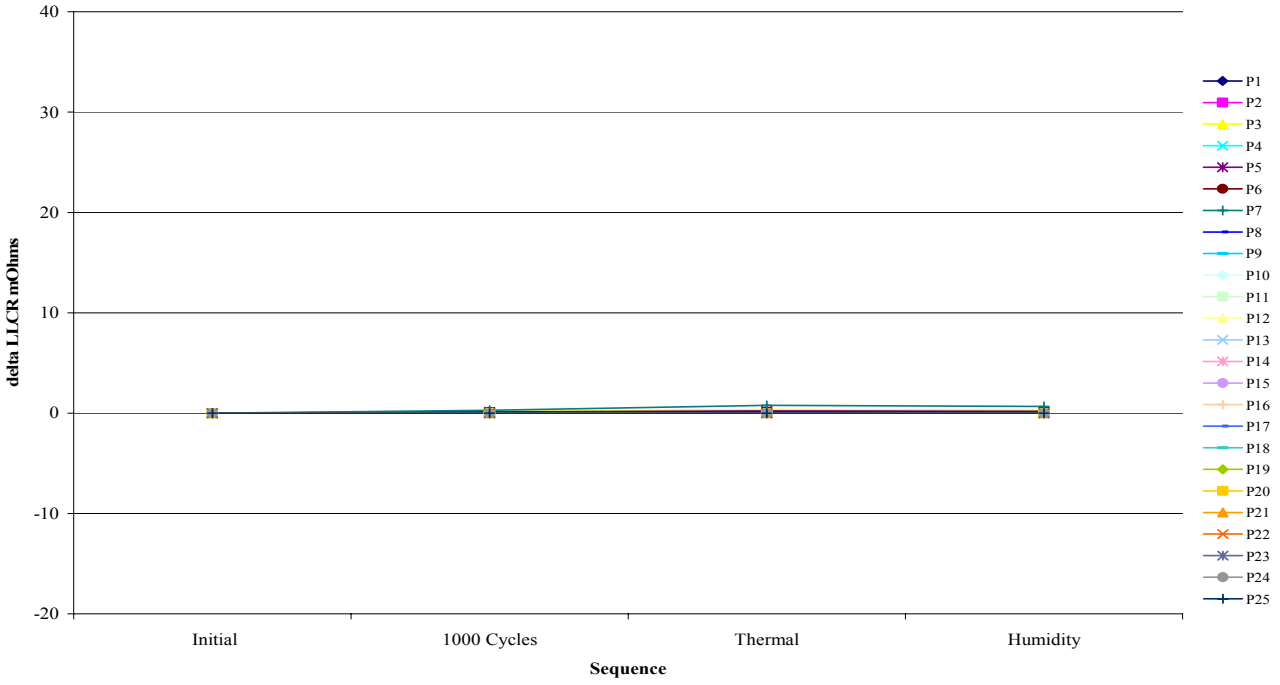
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #1



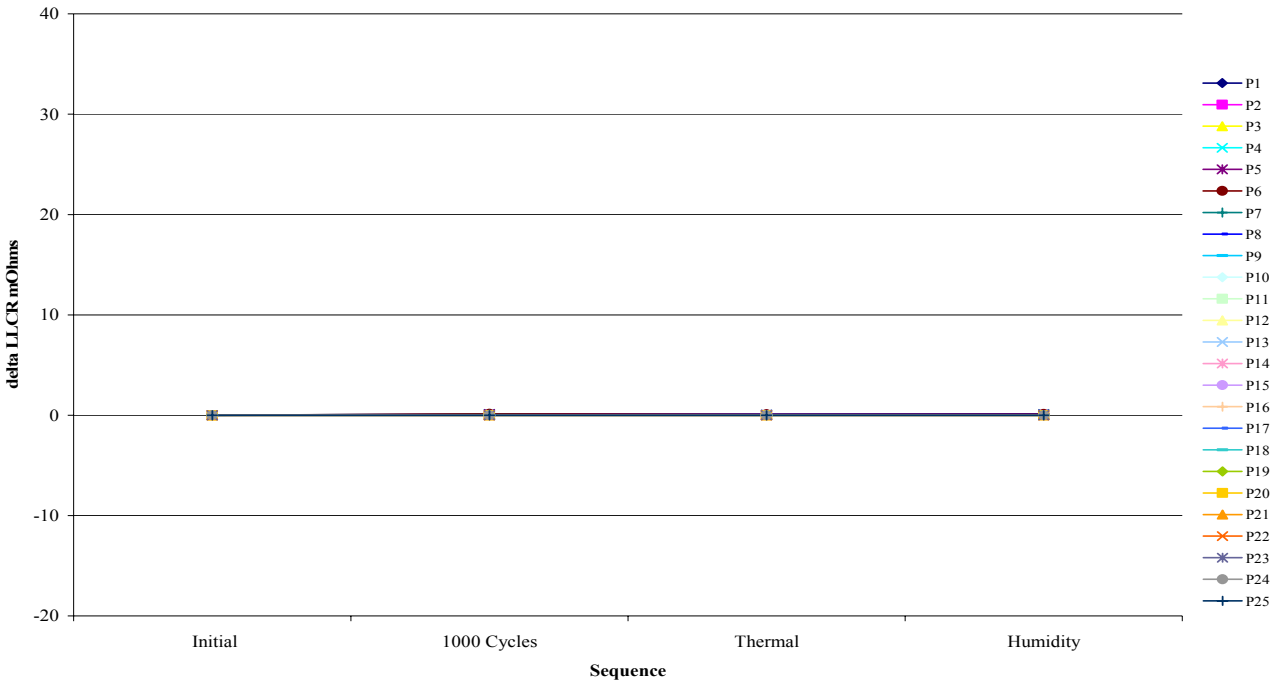
Board #2



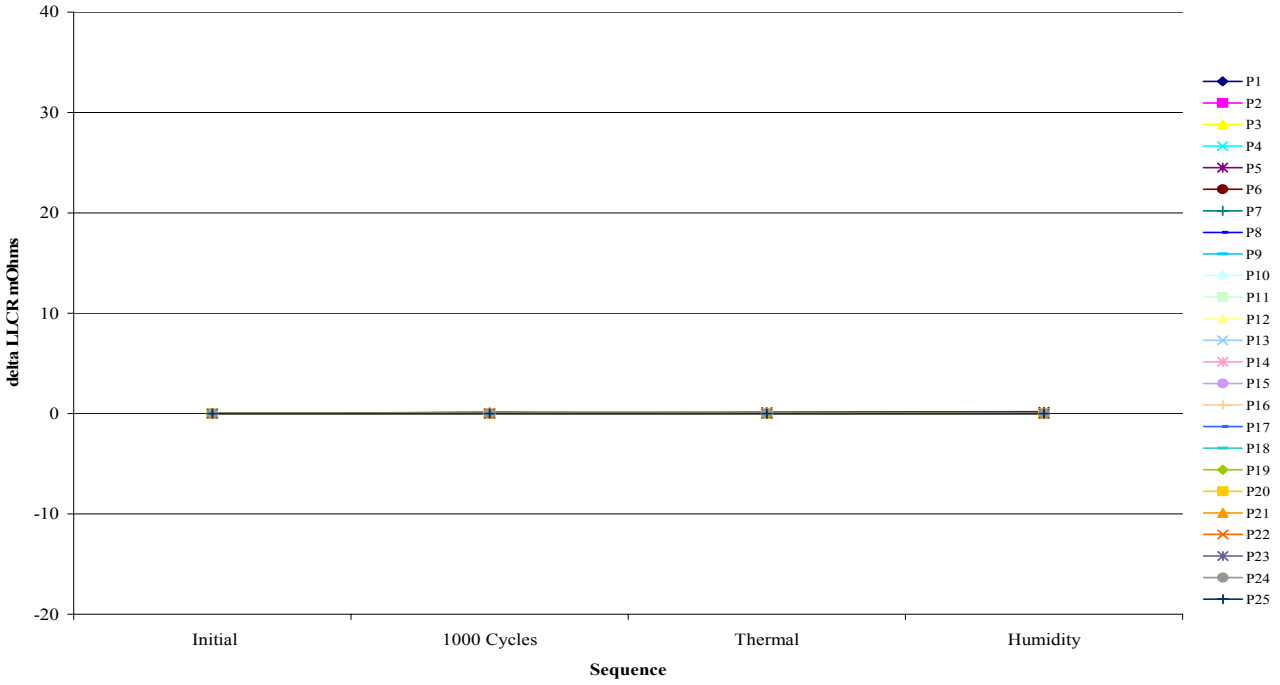
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #3



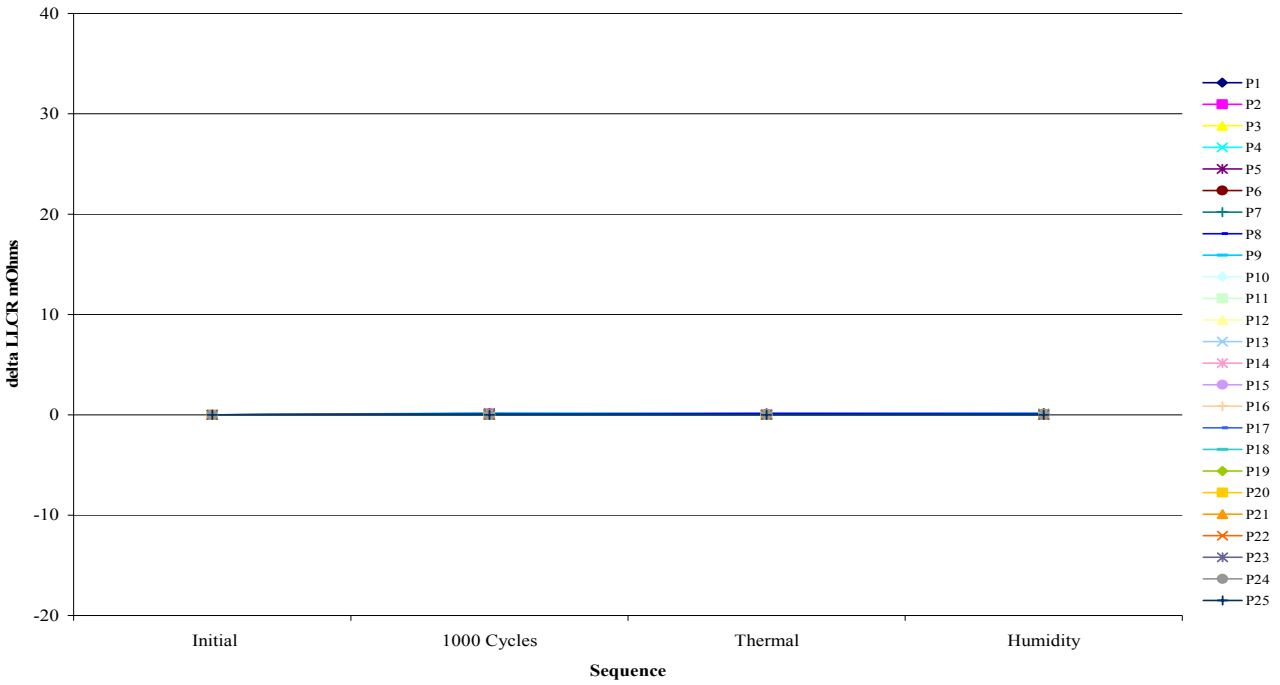
Board #4



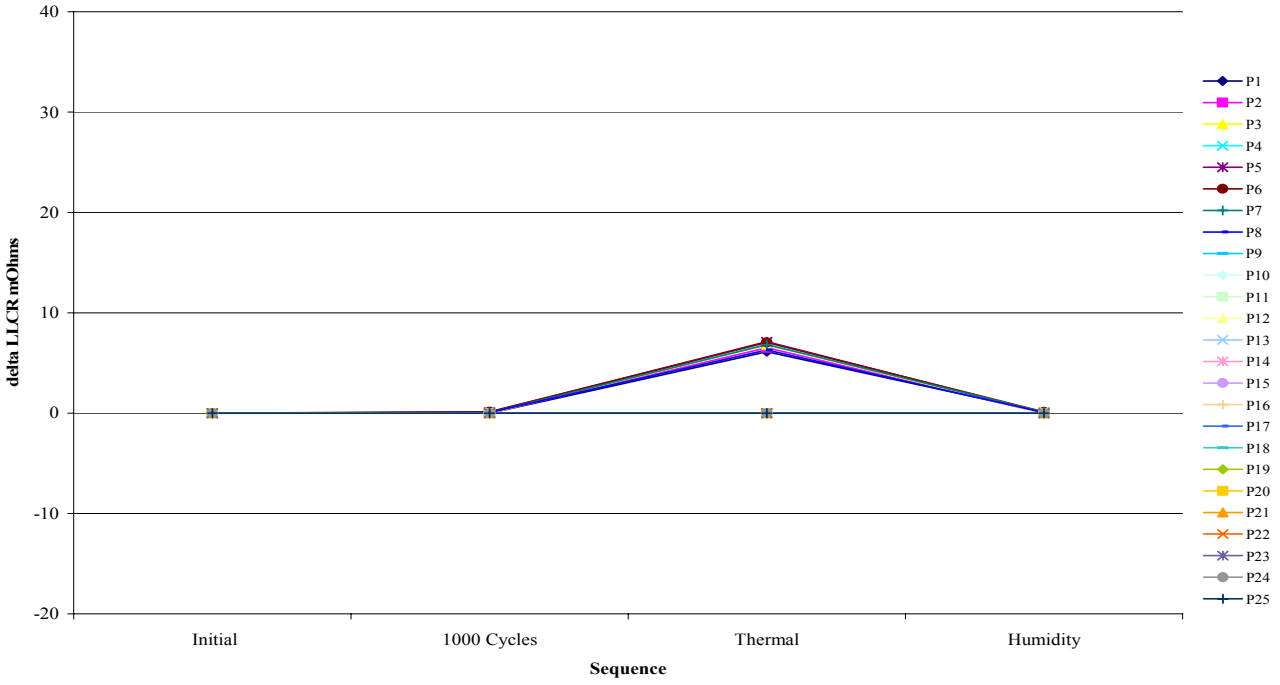
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #5



Board #6



Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

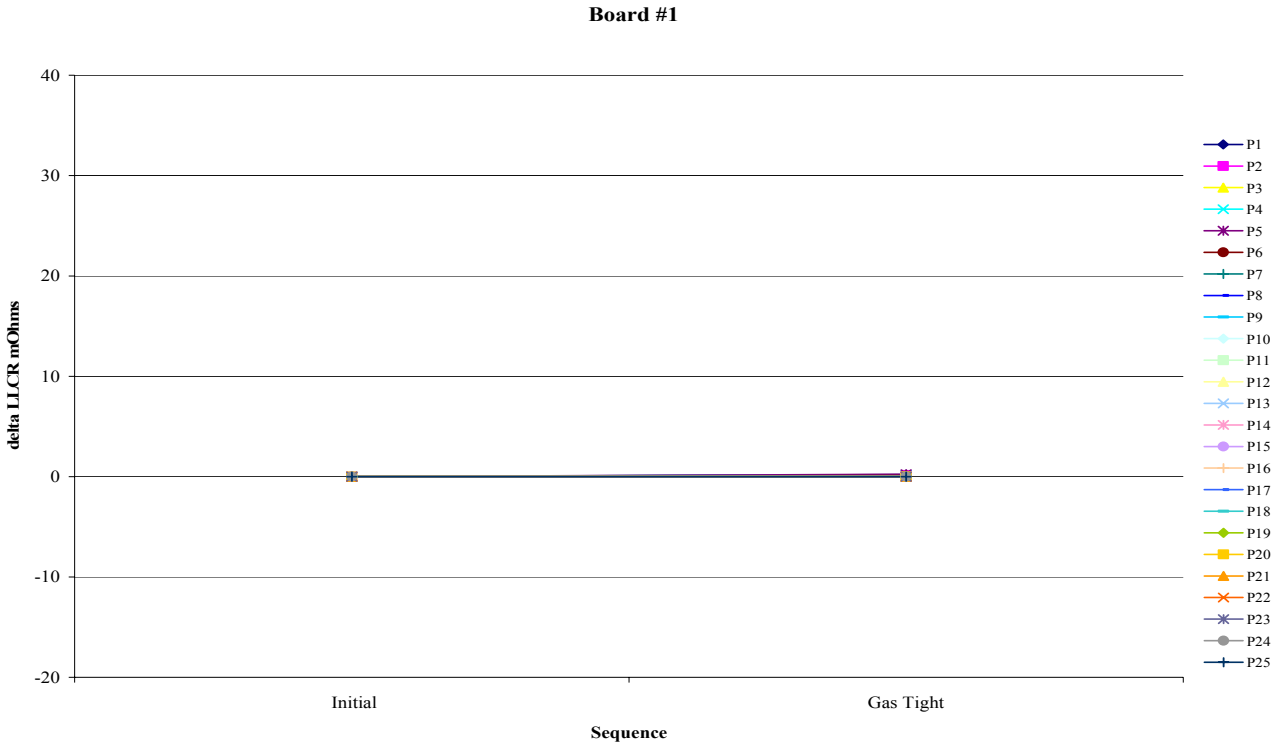
DATA SUMMARIES Continued

GAS TIGHT:

1) A total of 32 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

Signal:

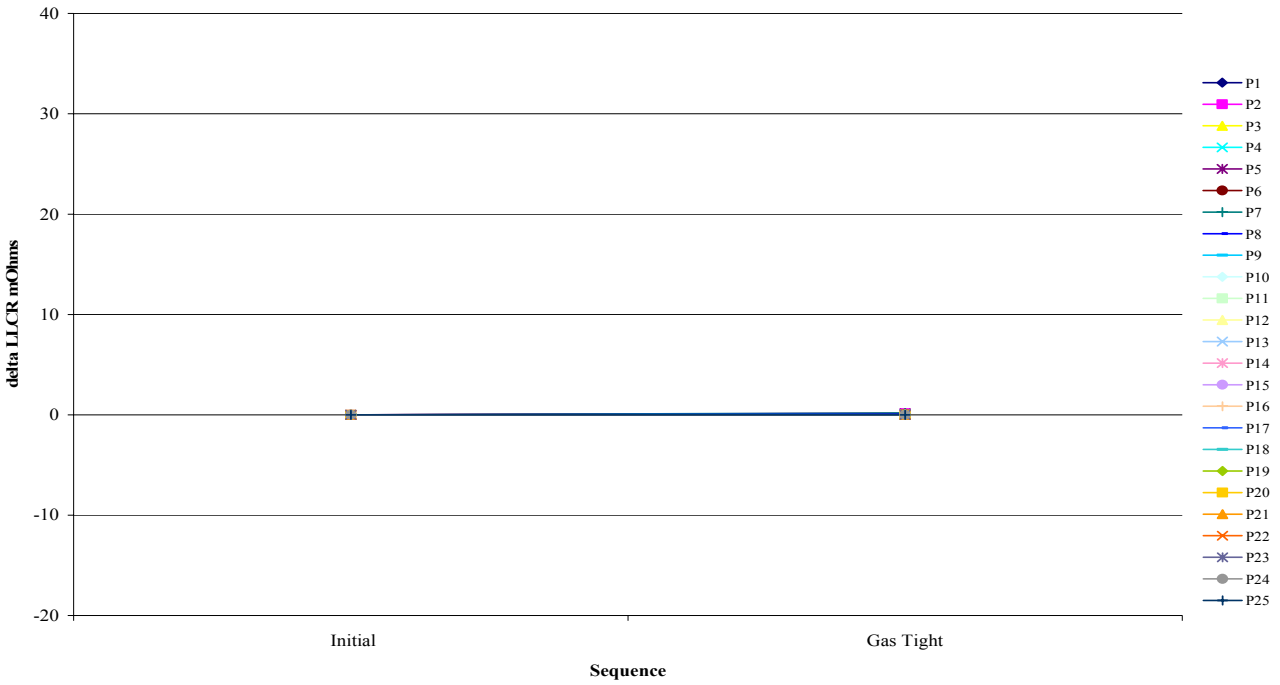
	Oct. 24 2005	Oct. 28 2005
Date		
Room Temp C	24	23
RH	32%	27%
Name	Troy Cook	Troy Cook
mOhm values	**Actual Initial**	**Delta Gas Tight**
Average	7.8	0.2
St. Dev.	0.4	0.2
Min	7.0	0.0
Max	8.6	0.7
Count	32	32



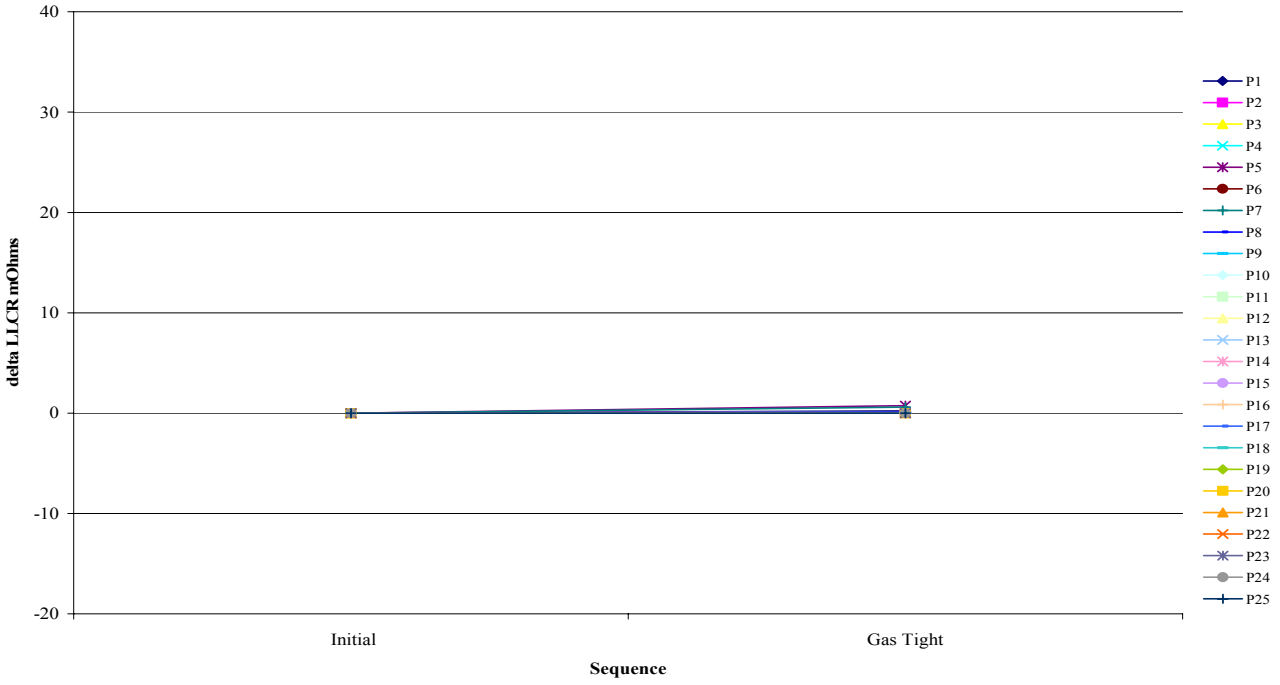
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #2

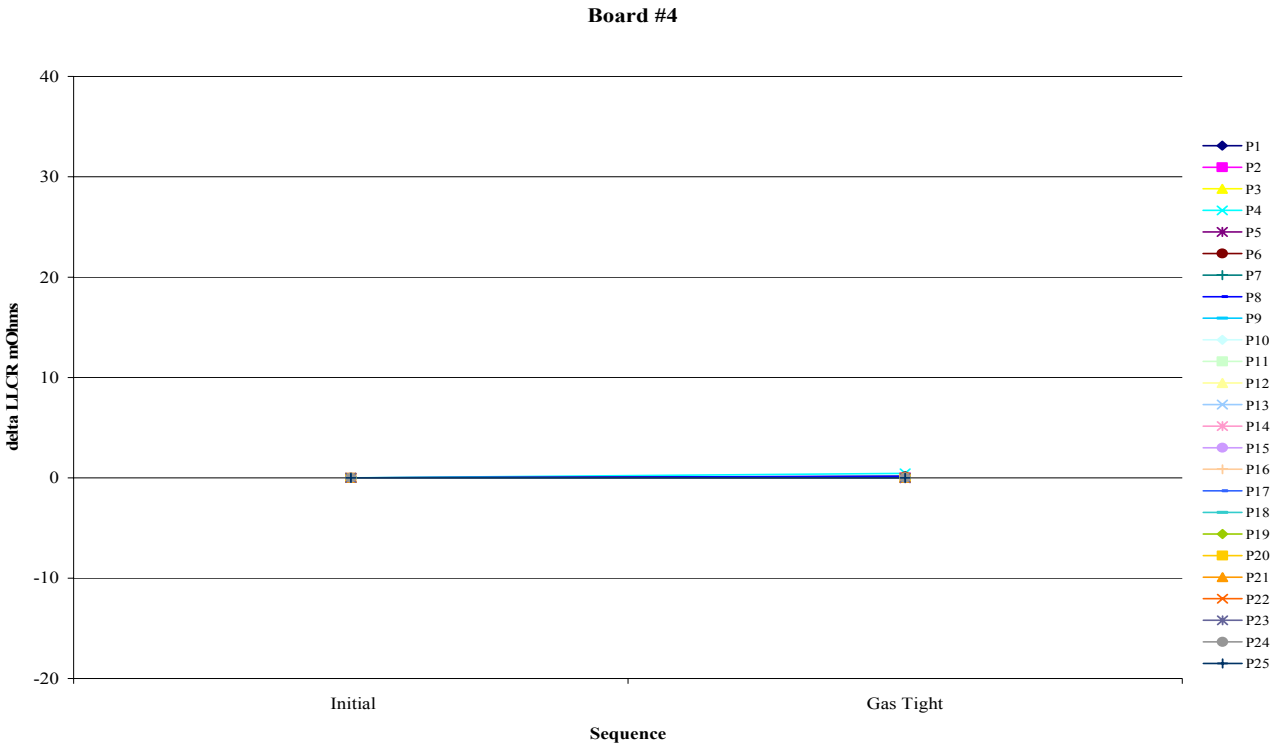


Board #3



Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued



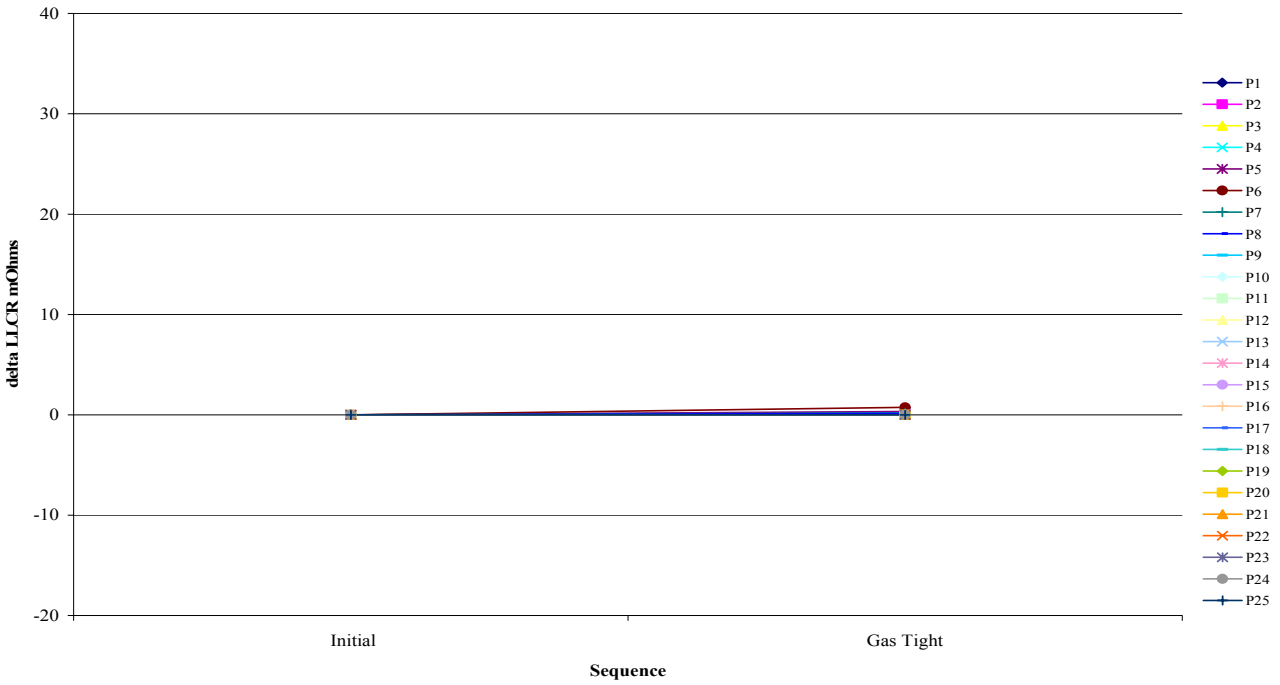
Ground:

	Oct. 24 2005	Oct. 28 2005
Date		
Room Temp C	24	23
RH	32%	32%
Name	Troy Cook	Troy Cook
mOhm values	**Actual Initial**	**Delta Gas Tight**
Average	1.3	0.2
St. Dev.	0.1	0.2
Min	1.3	0.1
Max	1.4	0.8
Count	32	32

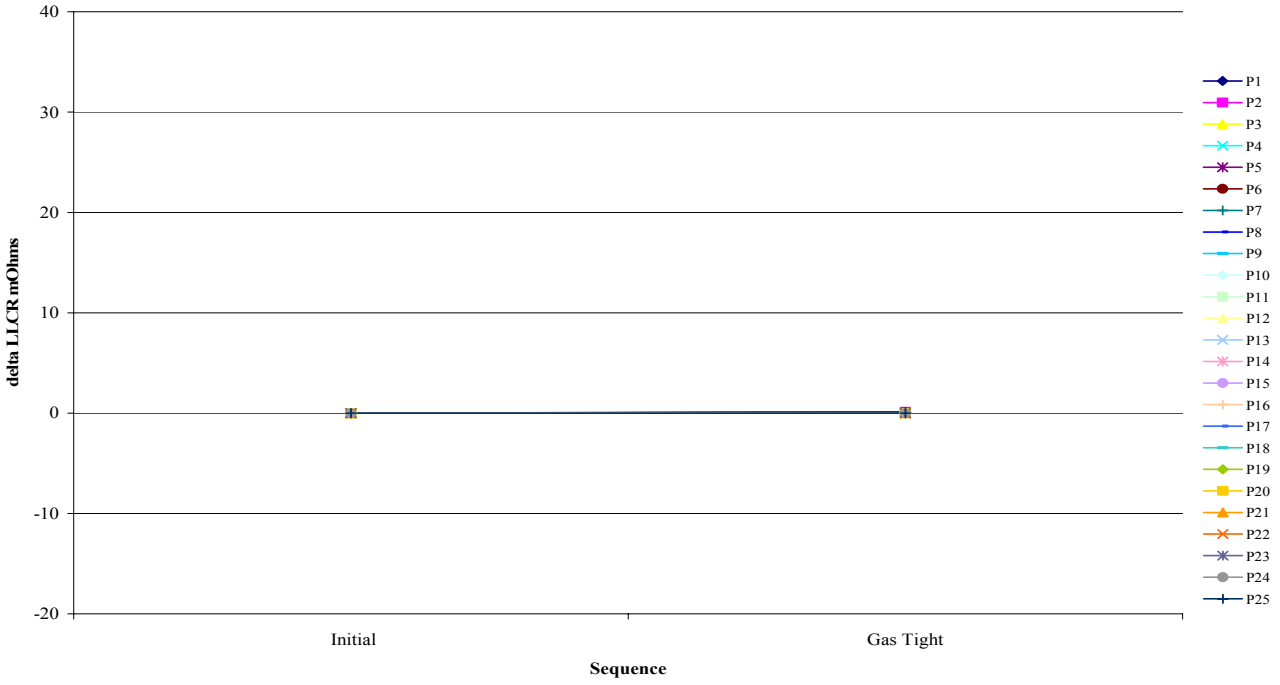
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #1



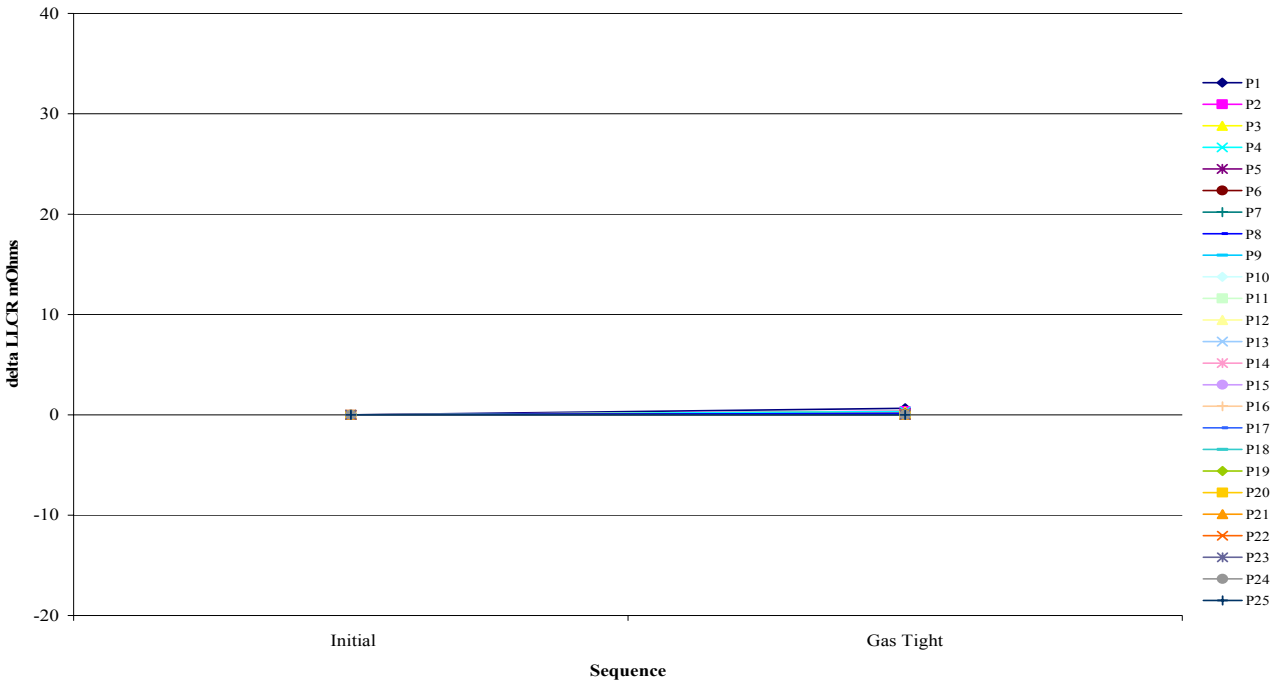
Board #2



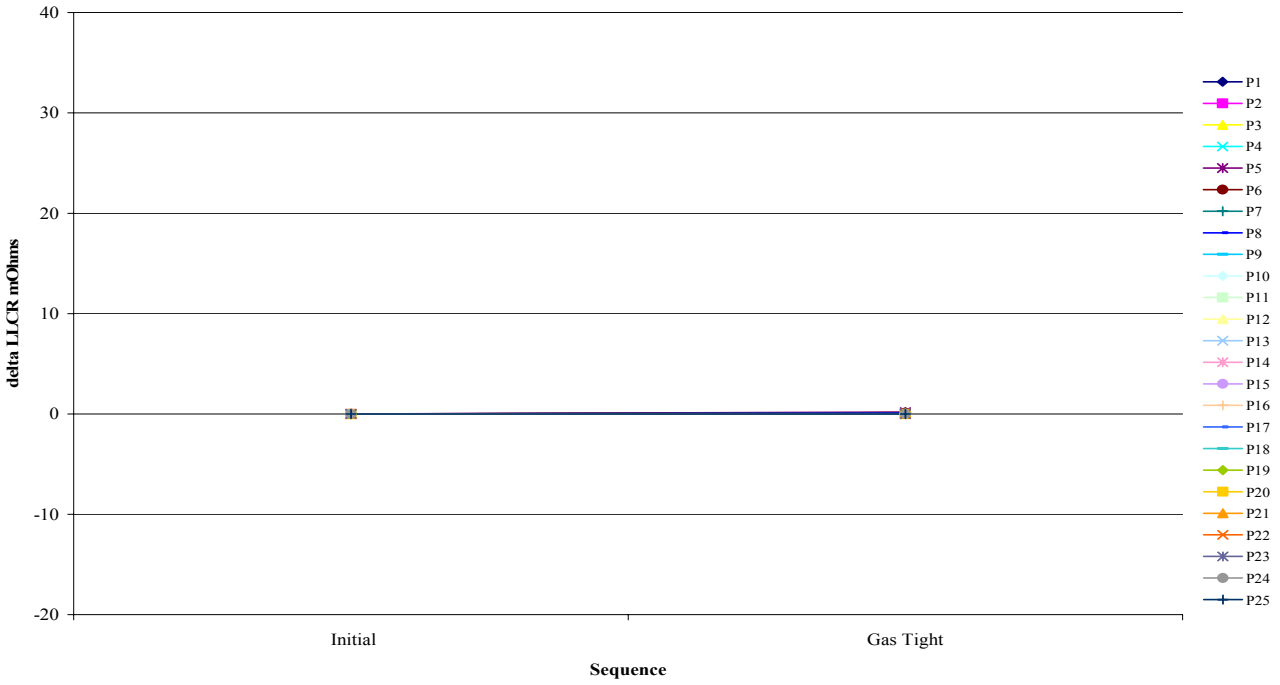
Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA SUMMARIES Continued

Board #3



Board #4



Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA

MATING/UNMATING:

8 Position:

	Initial				After 100 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
Sample#	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)
1	332.3	20.77	278.2	17.39	383.7	23.98	304.8	19.05
2	383.5	23.97	291.8	18.24	320.8	20.05	241.1	15.07
3	327.5	20.47	284.6	17.79	376.2	23.51	235.5	14.72
4	377.9	23.62	362.1	22.63	323.4	20.21	313.3	19.58
5	424.5	26.53	221.9	13.87	416.0	26.00	226.7	14.17
6	344.0	21.50	321.0	20.06	388.5	24.28	252.2	15.76
7	315.0	19.69	183.0	11.44	349.6	21.85	190.1	11.88
8	329.1	20.57	264.6	16.54	416.2	26.01	244.6	15.29
9	317.1	19.82	191.0	11.94	424.8	26.55	324.0	20.25
10	347.5	21.72	339.5	21.22	500.8	31.30	253.4	15.84

	After 500 Cycles				After 1000 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
Sample#	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)
1	325.3	20.33	172.2	10.76	239.2	14.95	180.5	11.28
2	296.3	18.52	147.2	9.20	240.2	15.01	147.7	9.23
3	303.7	18.98	168.3	10.52	243.4	15.21	146.7	9.17
4	284.3	17.77	236.5	14.78	236.8	14.80	201.9	12.62
5	351.7	21.98	125.1	7.82	347.7	21.73	184.2	11.51
6	288.8	18.05	201.9	12.62	285.0	17.81	180.0	11.25
7	396.5	24.78	174.2	10.89	343.0	21.44	196.2	12.26
8	393.4	24.59	152.8	9.55	327.2	20.45	199.0	12.44
9	284.0	17.75	221.9	13.87	316.3	19.77	196.2	12.26
10	444.8	27.80	147.4	9.21	397.9	24.87	156.5	9.78

	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	281.3	17.58	146.4	9.15	231.3	14.46	140.2	8.76
2	285.4	17.84	173.9	10.87	280.6	17.54	203.1	12.69
3	292.5	18.28	256.6	16.04	264.9	16.56	232.4	14.53
4	199.8	12.49	162.8	10.17	197.8	12.36	180.1	11.26
5	196.9	12.31	176.8	11.05	227.5	14.22	204.4	12.77
6	300.4	18.78	247.9	15.49	274.1	17.13	263.0	16.44
7	349.1	21.82	310.9	19.43	290.2	18.14	287.6	17.97
8	296.5	18.53	187.0	11.69	209.1	13.07	195.9	12.24
9	338.2	21.14	155.7	9.73	227.1	14.19	219.8	13.74
10	228.0	14.25	197.5	12.34	234.5	14.66	200.5	12.53

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA Continued

4 Position:

	Initial				After 100 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
Sample#	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)
1	212.2	13.26	71.3	4.46	248.1	15.51	126.4	7.90
2	189.4	11.84	147.2	9.20	237.9	14.87	143.1	8.94
3	200.5	12.53	159.1	9.94	250.4	15.65	133.7	8.36
4	163.8	10.24	92.9	5.80	240.8	15.05	108.8	6.80
5	199.3	12.46	169.0	10.56	239.3	14.95	133.1	8.32
6	169.9	10.62	150.9	9.43	199.7	12.48	187.8	11.74

	After 500 Cycles				After 1000 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
Sample#	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)
1	225.9	14.12	91.1	5.69	222.1	13.88	109.3	6.83
2	224.6	14.04	95.3	5.95	217.6	13.60	100.2	6.26
3	216.0	13.50	70.1	4.38	237.0	14.82	140.4	8.78
4	234.4	14.65	81.6	5.10	243.8	15.24	155.4	9.72
5	233.8	14.61	76.8	4.80	192.9	12.06	113.2	7.08
6	205.9	12.87	101.3	6.33	201.0	12.56	83.2	5.20

	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	114.2	7.14	87.3	5.46	116.1	7.26	99.9	6.24
2	115.8	7.24	91.8	5.74	109.1	6.82	94.6	5.91
3	117.9	7.37	86.4	5.40	122.7	7.67	88.8	5.55
4	149.5	9.34	135.0	8.44	147.6	9.22	139.5	8.72
5	162.3	10.14	61.7	3.86	125.1	7.82	104.0	6.50
6	118.6	7.41	51.7	3.23	89.3	5.58	88.9	5.56

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA Continued

INSULATION RESISTANCE (IR):

	Initial, Meg Ohms	
	Mated	Unmated
Sample #	Insulation Resistance	Insulation Resistance
1	50000	50000
2	25000	50000

	Thermal, Meg Ohms	
	Mated	Unmated
Sample #	Insulation Resistance	Insulation Resistance
1	100000	100000
2	100000	100000

	Humidity, Meg Ohms	
	Mated	Unmated
Sample #	Insulation Resistance	Insulation Resistance
1		
2		

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA Continued

DIELECTRIC WITHSTANDING VOLTAGE (DWV):

	Initial, VAC Mated			Initial, VAC Unmated		
Sample #	Breakdown Voltage	DWV	Working Voltage	Breakdown Voltage	DWV	Working Voltage
1	3100	2325	775	2700	2025	675
2	3000	2250	750	3100	2325	775

	Thermal, VAC Mated			Thermal, VAC Unmated		
Sample #	Breakdown Voltage	DWV	Working Voltage	Breakdown Voltage	DWV	Working Voltage
1	3100	2325	775	3400	2550	850
2	3300	2475	825	3300	2475	825

	Humidity, VAC Mated			Humidity, VAC Unmated		
Sample #	Breakdown Voltage	DWV	Working Voltage	Breakdown Voltage	DWV	Working Voltage
1	3100	2325	775	3100	2325	775
2	3100	2325	775	3200	2400	800

LLCR:

100 Cycle Signal:

Date	Oct. 19 2005	Oct. 22 2005	Oct. 31 2005	Nov. 10 2005
Room Temp C	23	24	23	23
RH	34%	42%	30%	29%
Name	Troy Cook	Troy Cook	Troy Cook	Troy Cook
mOhm values	**Actual Initial**	**Delta 100 Cycles**	**Delta Thermal**	**Delta Humidity**
Average	7.7	0.1	0.1	0.1
St. Dev.	0.7	0.2	0.2	0.2
Min	6.3	-0.6	-0.2	-0.1
Max	9.0	1.4	0.8	0.8
Count	48	48	48	48

mOhm values		Actual	Delta	Delta	Delta
Board	Position	Initial	100 Cycles	Thermal	Humidity
1	P1	7.0	0.0	0.0	0.1
1	P2	7.7	-0.2	-0.1	0.0

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

1	P3	7.9	0.0	0.0	0.0
1	P4	8.1	0.0	0.0	0.1
1	P5	8.4	-0.1	0.0	0.1
1	P6	8.1	0.0	0.0	0.0
1	P7	8.1	-0.6	0.0	0.1
1	P8	7.8	-0.1	-0.2	0.0
2	P1	6.3	0.1	0.1	0.0
2	P2	6.8	0.0	0.0	0.1
2	P3	7.2	0.0	0.0	0.1
2	P4	7.3	0.0	0.1	0.1
2	P5	7.3	0.0	0.0	0.0
2	P6	7.2	0.0	0.1	0.1
2	P7	7.0	0.2	0.2	0.2
2	P8	6.4	0.1	0.1	0.3
3	P1	6.5	0.2	0.4	0.5
3	P2	7.1	0.1	0.2	0.1
3	P3	7.1	0.0	0.1	0.1
3	P4	7.4	0.0	0.1	0.1
3	P5	7.6	0.1	0.8	0.8
3	P6	7.3	1.4	0.1	0.2
3	P7	7.1	0.1	0.2	0.3
3	P8	6.5	0.2	0.2	0.5
4	P1	7.5	0.1	0.1	0.2
4	P2	8.2	0.1	0.1	0.1
4	P3	8.7	0.0	0.1	0.3
4	P4	8.9	0.2	0.2	0.2
4	P5	8.9	0.2	0.2	0.1
4	P6	8.6	0.0	0.0	0.0
4	P7	8.7	0.0	0.0	0.1
4	P8	8.1	0.2	0.3	0.4
5	P1	6.9	-0.1	0.1	0.2
5	P2	7.3	-0.1	-0.1	-0.1
5	P3	7.5	0.1	0.2	0.1
5	P4	7.8	-0.1	-0.1	-0.1
5	P5	7.9	0.0	-0.1	0.0
5	P6	7.5	0.2	0.2	0.4
5	P7	7.4	-0.1	-0.2	-0.1
5	P8	6.8	-0.1	0.0	0.0
6	P1	7.4	0.1	0.1	0.1
6	P2	8.0	0.1	0.1	0.2
6	P3	8.6	0.0	0.1	0.2
6	P4	8.7	0.1	0.1	0.1
6	P5	9.0	-0.1	0.0	0.0
6	P6	8.8	0.1	0.0	0.1
6	P7	8.2	0.0	0.1	0.1
6	P8	7.7	0.0	0.0	0.1

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA Continued

100 Cycle Ground:

	Oct. 19 2005	Oct. 22 2005	Oct. 31 2005	Nov. 10 2005
Date				
Room Temp C	23	24	23	23
RH	33%	42%	30%	32%
Name	Troy Cook	Troy Cook	Troy Cook	Troy Cook
mOhm values	**Actual Initial**	**Delta 100 Cycles**	**Delta Thermal**	**Delta Humidity**
Average	1.3	0.0	0.1	0.1
St. Dev.	0.1	0.1	0.0	0.1
Min	1.2	-0.2	0.0	-0.1
Max	1.5	0.1	0.2	0.4
Count	48	48	48	48

mOhm values		Actual	Delta	Delta	Delta
Board	Position	Initial	100 Cycles	Thermal	Humidity
1	P1	1.3	0.0	0.0	0.1
1	P2	1.4	0.1	0.1	0.3
1	P3	1.4	0.1	0.0	0.0
1	P4	1.4	0.0	0.1	0.2
1	P5	1.4	0.1	0.1	0.3
1	P6	1.4	0.0	0.0	0.1
1	P7	1.4	0.0	0.0	0.0
1	P8	1.3	0.1	0.1	0.1
2	P1	1.2	0.1	0.1	0.3
2	P2	1.2	0.1	0.1	0.1
2	P3	1.3	0.0	0.0	0.1
2	P4	1.3	0.0	0.0	0.1
2	P5	1.3	0.1	0.1	0.1
2	P6	1.2	0.0	0.0	0.0
2	P7	1.2	0.1	0.2	0.3
2	P8	1.2	0.1	0.1	0.2
3	P1	1.2	0.1	0.1	0.1
3	P2	1.2	0.1	0.1	0.1
3	P3	1.3	0.1	0.1	0.1
3	P4	1.3	0.0	0.0	0.0
3	P5	1.3	0.0	0.0	0.0
3	P6	1.2	0.1	0.1	0.1
3	P7	1.2	0.1	0.1	0.1
3	P8	1.2	0.0	0.0	0.1
4	P1	1.4	0.1	0.1	0.1
4	P2	1.5	0.0	0.1	0.4
4	P3	1.5	0.1	0.1	0.2
4	P4	1.5	0.0	0.0	0.0
4	P5	1.5	0.0	0.0	0.1
4	P6	1.5	0.0	0.1	0.1

4	P7	1.5	0.0	0.0	0.1
4	P8	1.5	0.1	0.1	0.1
5	P1	1.2	0.0	0.0	0.1
5	P2	1.2	0.0	0.0	0.1
5	P3	1.4	-0.2	0.0	0.0
5	P4	1.4	0.0	0.1	0.3
5	P5	1.3	0.0	0.0	0.0
5	P6	1.4	0.0	0.0	-0.1
5	P7	1.3	0.0	0.0	0.1
5	P8	1.3	0.0	0.1	0.1
6	P1	1.4	0.0	0.1	0.1
6	P2	1.5	0.1	0.1	0.1
6	P3	1.5	0.0	0.1	0.1
6	P4	1.5	0.1	0.1	0.2
6	P5	1.5	0.1	0.1	0.1
6	P6	1.5	0.0	0.1	0.1
6	P7	1.5	0.0	0.0	0.1
6	P8	1.5	0.0	0.1	0.1

500 Cycle Signal:

Date	Oct. 19 2005	Oct. 22 2005	Oct. 31 2005	Nov. 10 2005
Room Temp C	23	24	23	24
RH	35%	42%	29%	30%
Name	Troy Cook	Troy Cook	Troy Cook	Troy Cook
mOhm values	**Actual Initial**	**Delta 500 Cycles**	**Delta Thermal**	**Delta Humidity**
Average	8.0	0.0	0.1	0.1
St. Dev.	0.5	0.1	0.1	0.1
Min	7.0	-0.4	-0.3	-0.2
Max	9.1	0.2	0.4	0.4
Count	48	48	48	48

mOhm values		**Actual**	**Delta**	**Delta**	**Delta**
Board	**Position**	**Initial**	**500 Cycles**	**Thermal**	**Humidity**
1	P1	7.1	-0.1	0.0	0.0
1	P2	7.4	0.0	0.0	0.1
1	P3	7.9	0.0	0.0	0.2
1	P4	8.1	0.0	0.0	0.1
1	P5	8.1	0.0	0.1	0.1
1	P6	8.4	-0.4	-0.3	-0.2
1	P7	7.6	0.0	0.1	0.2
1	P8	7.4	0.0	0.1	0.2
2	P1	7.0	0.1	0.2	0.2
2	P2	7.6	0.1	0.2	0.3

2	P3	7.9	0.0	0.0	0.1
2	P4	8.4	0.0	0.0	0.1
2	P5	8.2	0.0	0.0	0.1
2	P6	8.2	-0.1	0.0	0.0
2	P7	7.9	0.0	0.0	0.0
2	P8	8.1	-0.1	0.1	0.4
3	P1	7.1	0.0	0.1	0.1
3	P2	7.7	0.1	0.1	0.1
3	P3	8.3	0.0	0.0	0.1
3	P4	8.4	0.1	0.2	0.3
3	P5	8.4	0.0	0.0	0.1
3	P6	8.4	-0.1	0.1	0.3
3	P7	8.2	0.1	0.1	0.2
3	P8	7.7	0.0	0.1	0.2
4	P1	7.7	0.1	0.1	0.2
4	P2	8.3	0.1	0.0	0.2
4	P3	8.8	-0.1	-0.1	0.3
4	P4	9.0	0.0	0.0	0.2
4	P5	9.1	0.0	0.0	0.1
4	P6	9.0	-0.1	-0.1	0.1
4	P7	8.8	0.0	0.0	0.1
4	P8	8.3	0.0	0.0	0.2
5	P1	7.3	0.1	0.2	0.2
5	P2	7.8	0.1	0.1	0.1
5	P3	8.2	0.1	0.2	0.4
5	P4	8.5	0.2	0.1	0.2
5	P5	8.6	0.0	0.0	0.1
5	P6	8.4	0.1	0.1	0.2
5	P7	8.2	0.1	0.1	0.2
5	P8	7.8	0.1	0.2	0.3
6	P1	7.2	0.0	0.1	0.1
6	P2	7.5	0.0	0.0	0.0
6	P3	7.9	0.0	0.0	0.1
6	P4	8.3	0.0	0.1	0.1
6	P5	8.1	0.1	0.1	0.1
6	P6	8.2	0.1	0.2	0.2
6	P7	7.7	0.1	0.1	0.1
6	P8	7.3	0.0	0.4	0.1

500 Cycle Ground:

Date	Oct. 19 2005	Oct. 22 2005	Oct. 31 2005	Nov. 10 2005
Room Temp C	23	24	23	24
RH	35%	42%	30%	29%
Name	Troy Cook	Troy Cook	Troy Cook	Troy Cook
mOhm values	**Actual Initial**	**Delta 500 Cycles**	**Delta Thermal**	**Delta Humidity**

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

Average	1.4	0.1	0.1	0.1
St. Dev.	0.1	0.1	0.1	0.1
Min	1.3	-0.1	-0.1	-0.1
Max	1.6	0.3	0.2	0.3
Count	48	48	48	48

mOhm values		Actual	Delta	Delta	Delta
Board	Position	Initial	500 Cycles	Thermal	Humidity
1	P1	1.4	0.0	0.1	0.0
1	P2	1.4	0.0	0.1	0.1
1	P3	1.4	0.0	0.1	0.1
1	P4	1.4	0.1	0.1	0.2
1	P5	1.4	0.1	0.1	0.2
1	P6	1.4	0.0	0.1	0.3
1	P7	1.4	0.1	0.1	0.1
1	P8	1.3	0.0	0.0	0.0
2	P1	1.3	0.0	0.0	0.0
2	P2	1.4	0.0	0.0	0.0
2	P3	1.4	0.0	-0.1	-0.1
2	P4	1.4	0.1	0.1	0.1
2	P5	1.4	0.3	0.2	0.1
2	P6	1.4	0.1	0.1	0.1
2	P7	1.4	0.0	0.0	0.0
2	P8	1.5	0.1	0.1	0.1
3	P1	1.4	0.0	0.1	0.1
3	P2	1.4	0.0	0.1	0.0
3	P3	1.4	-0.1	0.0	0.0
3	P4	1.4	0.1	0.1	0.0
3	P5	1.4	0.1	0.0	0.1
3	P6	1.5	-0.1	0.0	0.1
3	P7	1.4	0.0	0.0	0.0
3	P8	1.4	0.0	0.0	0.0
4	P1	1.4	0.1	0.1	0.1
4	P2	1.5	0.0	0.0	0.0
4	P3	1.5	0.0	0.0	0.0
4	P4	1.5	0.1	0.0	0.0
4	P5	1.5	0.2	0.1	0.1
4	P6	1.6	0.0	0.0	0.0
4	P7	1.6	0.3	0.2	0.1
4	P8	1.5	0.0	0.0	0.1
5	P1	1.4	0.1	0.0	0.1
5	P2	1.4	0.1	0.1	0.1
5	P3	1.5	0.0	0.0	0.0
5	P4	1.5	0.1	0.1	0.1
5	P5	1.5	0.1	0.1	0.1
5	P6	1.5	0.1	0.0	0.0
5	P7	1.5	0.1	0.1	0.1
5	P8	1.4	0.0	0.0	0.0

6	P1	1.3	0.1	0.0	0.1
6	P2	1.4	0.1	0.1	0.2
6	P3	1.4	0.0	0.0	0.0
6	P4	1.4	0.0	0.0	0.0
6	P5	1.4	0.1	0.1	0.1
6	P6	1.4	0.0	0.0	0.1
6	P7	1.3	0.0	0.0	0.1
6	P8	1.4	0.0	0.1	0.1

1000 Cycle Signal:

	Oct. 19 2005	Oct. 22 2005	Oct. 31 2005	Nov. 10 2005
Date				
Room Temp C	23	24	23	23
RH	37%	42%	26%	32%
Name	Troy Cook	Troy Cook	Troy Cook	Troy Cook
mOhm values	**Actual Initial**	**Delta 1000 Cycles**	**Delta Thermal**	**Delta Humidity**
Average	7.4	0.3	0.4	0.4
St. Dev.	0.9	0.8	0.9	0.9
Min	5.3	-0.2	-0.1	-0.1
Max	8.6	3.9	4.3	5.2
Count	48	48	48	48

mOhm values		**Actual**	**Delta**	**Delta**	**Delta**
Board	**Position**	**Initial**	**1000 Cycles**	**Thermal**	**Humidity**
1	P1	5.8	1.6	2.0	1.8
1	P2	5.7	1.7	1.8	1.4
1	P3	5.3	2.2	2.4	1.9
1	P4	5.8	3.9	4.3	5.2
1	P5	5.3	2.4	2.6	2.1
1	P6	6.0	1.6	1.8	1.6
1	P7	6.1	1.2	1.4	1.6
1	P8	6.0	0.9	1.0	0.9
2	P1	7.5	-0.2	0.0	-0.1
2	P2	7.6	0.0	0.2	0.1
2	P3	7.9	0.1	0.1	0.2
2	P4	8.2	0.1	0.1	0.3
2	P5	8.2	0.1	0.1	0.2
2	P6	8.2	0.0	0.0	0.0
2	P7	8.5	-0.2	-0.1	0.1
2	P8	7.3	0.0	-0.1	0.0
3	P1	6.9	-0.1	0.0	0.0
3	P2	7.5	0.1	0.2	0.2
3	P3	7.9	0.0	0.0	0.0
3	P4	8.0	0.0	0.1	0.1
3	P5	8.1	-0.1	-0.1	0.0
3	P6	8.2	0.0	0.0	0.0

3	P7	7.8	-0.1	0.0	0.0
3	P8	7.6	0.0	0.1	0.0
4	P1	7.0	0.0	0.2	0.2
4	P2	7.6	0.0	0.0	0.1
4	P3	7.8	0.0	0.1	0.1
4	P4	7.8	0.1	0.3	0.4
4	P5	7.9	0.0	0.1	0.2
4	P6	7.9	0.0	0.0	0.1
4	P7	7.3	0.1	0.1	0.1
4	P8	6.9	0.1	0.1	0.1
5	P1	6.6	0.0	0.0	0.1
5	P2	7.1	0.0	0.0	0.2
5	P3	7.4	0.0	0.0	0.1
5	P4	7.6	0.0	0.0	0.2
5	P5	7.9	0.0	0.0	0.1
5	P6	7.6	0.0	0.0	0.1
5	P7	7.2	0.0	0.0	0.1
5	P8	7.1	-0.1	-0.1	0.0
6	P1	7.5	0.1	0.1	0.1
6	P2	7.9	0.1	0.0	0.1
6	P3	8.3	0.1	0.0	0.1
6	P4	8.6	0.0	0.1	0.1
6	P5	8.6	0.1	0.1	0.1
6	P6	8.5	0.1	0.1	0.1
6	P7	8.3	0.1	0.1	0.1
6	P8	7.8	0.1	0.1	0.2

1000 Cycle Ground:

Date	Oct. 19 2005	Oct. 22 2005	Oct. 31 2005	Nov. 10 2005
Room Temp C	23	24	23	24
RH	36%	42%	26%	33%
Name	Troy Cook	Troy Cook	Troy Cook	Troy Cook
mOhm values	**Actual Initial**	**Delta 1000 Cycles**	**Delta Thermal**	**Delta Humidity**
Average	1.4	0.1	1.3	0.1
St. Dev.	0.1	0.2	2.5	0.2
Min	0.9	0.0	0.0	0.0
Max	1.6	0.8	7.1	0.8
Count	48	48	48	48

mOhm values		**Actual**	**Delta**	**Delta**	**Delta**
Board	**Position**	**Initial**	**1000 Cycles**	**Thermal**	**Humidity**
1	P1	1.1	0.4	0.4	0.3
1	P2	1.2	0.4	0.4	0.3
1	P3	1.1	0.5	0.5	0.4
1	P4	0.9	0.8	1.1	0.8

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

1	P5	1.1	0.6	0.5	0.4
1	P6	1.2	0.4	0.3	0.3
1	P7	1.2	0.3	0.4	0.3
1	P8	1.3	0.2	0.3	0.2
2	P1	1.3	0.0	0.1	0.1
2	P2	1.3	0.1	0.1	0.1
2	P3	1.4	0.2	0.4	0.3
2	P4	1.4	0.0	0.1	0.1
2	P5	1.4	0.1	0.2	0.2
2	P6	1.4	0.1	0.2	0.1
2	P7	1.4	0.3	0.8	0.7
2	P8	1.4	0.1	0.1	0.1
3	P1	1.3	0.0	0.1	0.1
3	P2	1.4	0.0	0.0	0.0
3	P3	1.3	0.0	0.0	0.0
3	P4	1.4	0.1	0.1	0.1
3	P5	1.4	0.1	0.1	0.1
3	P6	1.4	0.1	0.1	0.1
3	P7	1.4	0.1	0.0	0.0
3	P8	1.4	0.0	0.1	0.1
4	P1	1.4	0.0	0.0	0.0
4	P2	1.4	0.0	0.0	0.0
4	P3	1.4	0.1	0.0	0.0
4	P4	1.4	0.0	0.0	0.0
4	P5	1.2	0.0	0.1	0.2
4	P6	1.4	0.0	0.0	0.0
4	P7	1.4	0.1	0.1	0.1
4	P8	1.4	0.1	0.1	0.1
5	P1	1.3	0.1	0.1	0.2
5	P2	1.3	0.1	0.1	0.1
5	P3	1.3	0.1	0.0	0.1
5	P4	1.4	0.2	0.1	0.2
5	P5	1.3	0.1	0.0	0.1
5	P6	1.3	0.1	0.0	0.1
5	P7	1.3	0.1	0.1	0.1
5	P8	1.4	0.0	0.1	0.1
6	P1	1.5	0.0	6.1	0.1
6	P2	1.5	0.0	6.5	0.0
6	P3	1.6	0.0	6.8	0.0
6	P4	1.6	0.1	7.0	0.0
6	P5	1.5	0.1	7.1	0.1
6	P6	1.5	0.1	7.0	0.1
6	P7	1.6	0.1	6.8	0.1
6	P8	1.6	0.1	6.3	0.1

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

DATA Continued

GAS TIGHT:

Signal:

	Oct. 24 2005	Oct. 28 2005
Date		
Room Temp C	24	23
RH	32%	27%
Name	Troy Cook	Troy Cook
mOhm values	**Actual Initial**	**Delta Gas Tight**
Average	7.8	0.2
St. Dev.	0.4	0.2
Min	7.0	0.0
Max	8.6	0.7
Count	32	32

mOhm values		**Actual**	**Delta**
Board	**Position**	**Initial**	**Gas Tight**
1	P1	7.2	0.2
1	P2	7.6	0.2
1	P3	7.8	0.1
1	P4	8.0	0.2
1	P5	7.9	0.3
1	P6	7.8	0.1
1	P7	7.4	0.1
1	P8	7.0	0.0
2	P1	7.3	0.1
2	P2	7.9	0.2
2	P3	8.2	0.1
2	P4	8.6	0.1
2	P5	8.6	0.1
2	P6	8.6	0.1
2	P7	8.3	0.2
2	P8	8.1	0.1
3	P1	7.1	0.2
3	P2	7.4	0.1
3	P3	7.9	0.1
3	P4	7.9	0.1
3	P5	8.0	0.7
3	P6	7.8	0.0
3	P7	7.4	0.6
3	P8	7.3	0.1
4	P1	7.2	0.1
4	P2	7.9	0.1
4	P3	8.0	0.0
4	P4	8.1	0.4

4	P5	8.2	0.0
4	P6	8.2	0.1
4	P7	7.6	0.0
4	P8	7.1	0.2

Ground:

Date	Oct. 24 2005	Oct. 28 2005
Room Temp C	24	23
RH	32%	32%
Name	Troy Cook	Troy Cook
mOhm values	**Actual Initial**	**Delta Gas Tight**
Average	1.3	0.2
St. Dev.	0.1	0.2
Min	1.3	0.1
Max	1.4	0.8
Count	32	32

mOhm values		**Actual**	**Delta**
Board	**Position**	**Initial**	**Gas Tight**
1	P1	1.3	0.2
1	P2	1.3	0.2
1	P3	1.4	0.2
1	P4	1.3	0.3
1	P5	1.3	0.3
1	P6	1.4	0.8
1	P7	1.3	0.2
1	P8	1.3	0.1
2	P1	1.3	0.1
2	P2	1.4	0.1
2	P3	1.4	0.1
2	P4	1.4	0.1
2	P5	1.4	0.1
2	P6	1.4	0.1
2	P7	1.4	0.1
2	P8	1.4	0.1
3	P1	1.3	0.7
3	P2	1.3	0.4
3	P3	1.3	0.3
3	P4	1.4	0.3
3	P5	1.3	0.1
3	P6	1.3	0.1
3	P7	1.3	0.1
3	P8	1.3	0.1
4	P1	1.3	0.1
4	P2	1.4	0.1

4	P3	1.3	0.1
4	P4	1.3	0.1
4	P5	1.4	0.2
4	P6	1.4	0.1
4	P7	1.3	0.1
4	P8	1.3	0.1

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/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: 06/16/05, Next Cal: 06/16/06

Equipment #: MO-02
Description: Multimeter /Data Acquisition System
Manufacturer: Keithley
Model: 2700
Serial #: 0780546
Accuracy: See Manual
… Last Cal: 05/12/05, Next Cal: 05/12/06

Equipment #: MO-04
Description: Multimeter /Data Acquisition System
Manufacturer: Keithley
Model: 2700
Serial #: 0798688
Accuracy: See Manual - DO NOT USE UNTIL CALIBRATED.
… Last Cal: 6/12/04, Next Cal: 6/12/05

Equipment #: PS-01
Description: System Power Supply
Manufacturer: Hewlett Packard
Model: HP 6033A
Serial #: (HP) 3329A-07330
Accuracy: See Manual
… Last Cal: 05/12/05, Next Cal: 05/12/06

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

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: 5/12/05, Next Cal: 5/12/06

Equipment #: LC-250N (icell)
Description: 250 Newton load cell for Dillon Quantrol test stand
Manufacturer: Dillon Quantrol
Model: icell
Serial #: 04-0020-08
Accuracy: .10 % of Capacity .10 % of Capacity
… Last Cal: 4/19/2005, Next Cal: 4/19/2006

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: 05/12/05, Next Cal: 05/12/06

Equipment #: THC-01
Description: Temperature/Humidity Chamber
Manufacturer: Thermotron
Model: SM-8-7800
Serial #: 30676
Accuracy: See Manual
… Last Cal: 7/15/2005, Next Cal: 8/15/2006

Equipment #: HPM-01
Description: Hipot Megommeter
Manufacturer: Hipotronics
Model: H306B-A
Serial #: M9905004
Accuracy: 2 % Full Scale Accuracy
… Last Cal: 5/12/05, Next Cal: 05/12/06

Equipment #: MO-01
Description: Micro-Ohmeter
Manufacturer: Keithley
Model: 580
Serial #: 00120351
Accuracy: See Manual
… Last Cal: 05/12/05, Next Cal: 05/12/06

Equipment #: MO-03
Description: Multimeter /Data Acquisition System
Manufacturer: Keithley
Model: 2700
Serial #: 0791975
Accuracy: See Manual
… Last Cal: 05/12/05, Next Cal: 05/12/06

Tracking Code: TC0541--0853	Part #: GRF1-J-P-XX-E-ST-TH1
Part description: Gang RF Board Plug/Jack	

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