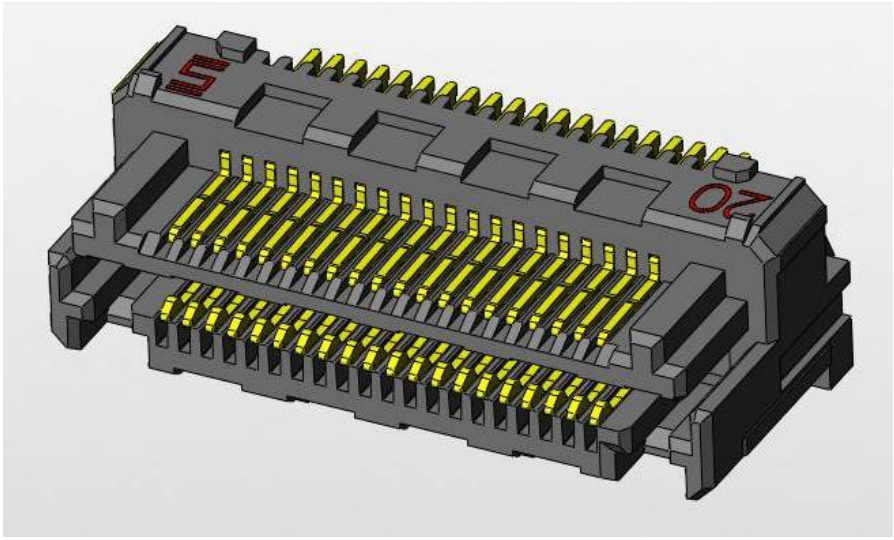
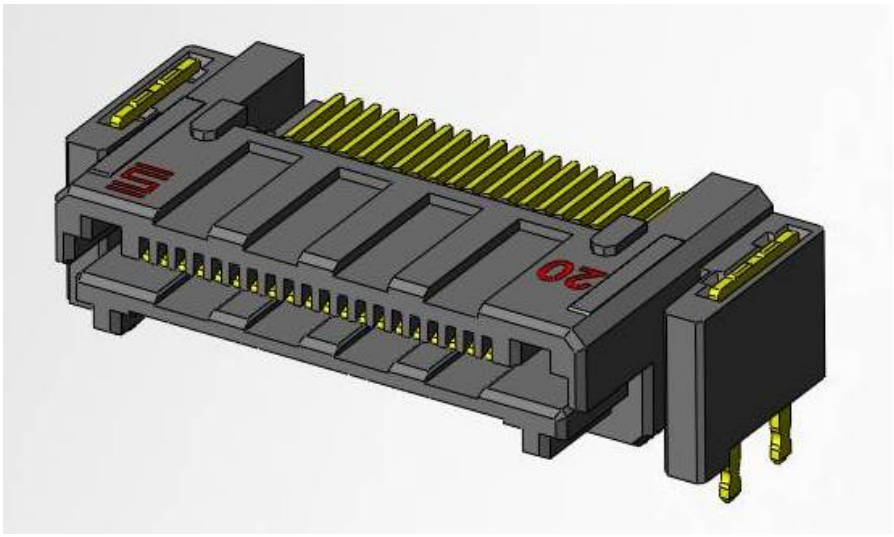
Project Number: Design Qualification Test Report	Tracking Code: 173210_Report_Rev_1		
Requested by: Steven Xu	Date: 3/6/2012	Product Rev: 0	
Part #: LSHM-150-01-F-RH-A-N\LSHM-150-01-F-DH-A-N	Lot #: N/A	Tech: Kason He	Eng: Vico Zhao
Part description: LSHM-RH\LSHM-DH			Qty to test: 80
Test Start: 12/5/2011	Test Completed: 1/3/2012		





DESIGN QUALIFICATION TEST REPORT

LSHM-RH\LSHM-DH
LSHM-150-01-F-RH-A-N\LSHM-150-01-F-DH-A-N

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.

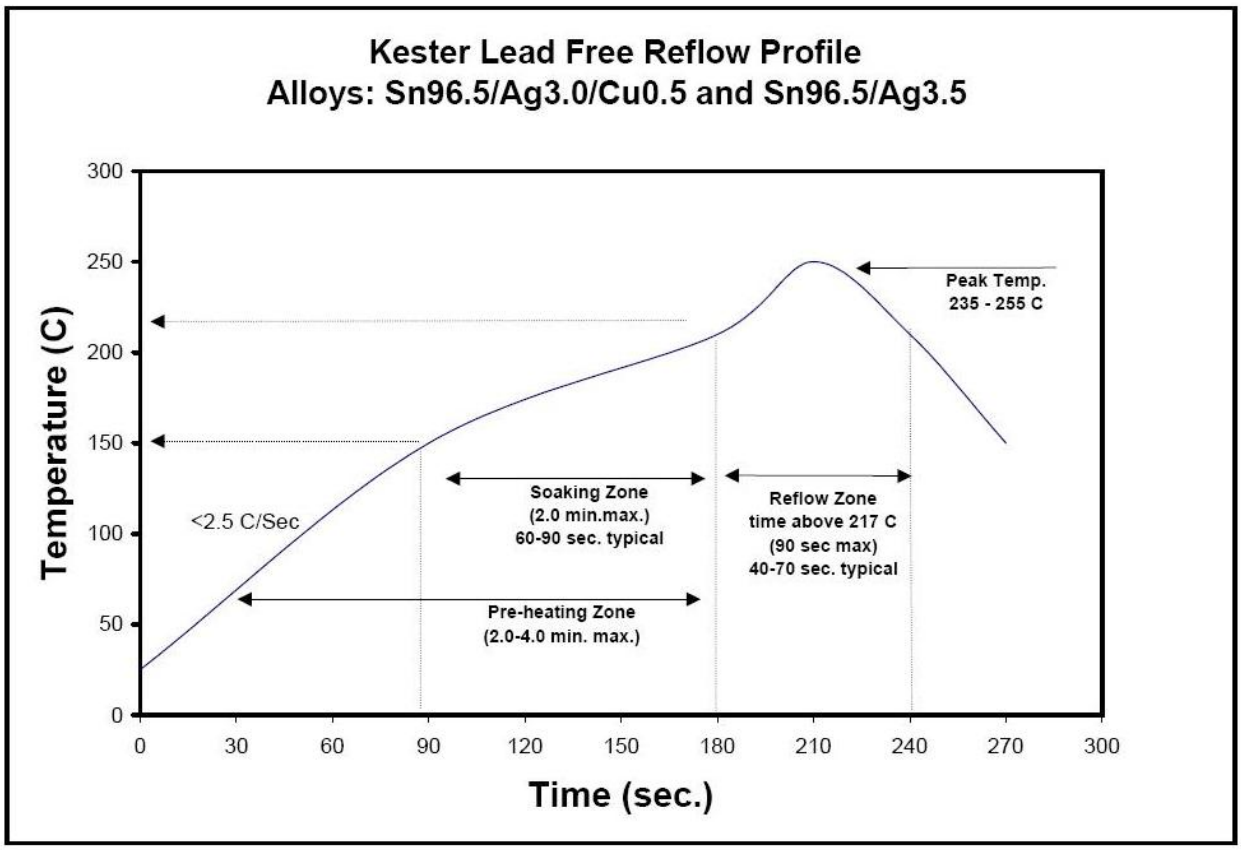
APPLICABLE DOCUMENTS

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-103391-TST\PCB-103397-TST

TYPICAL OVEN PROFILE (Soldering Parts to Test Boards)



FLOWCHARTS

Gas Tight

TEST STEP	GROUP A1 192 Points
01	LLCR-1
02	Gas Tight
03	LLCR-2

Gas Tight = EIA-364-36A

LLCR = EIA-364-23, LLCR

20 mV Max, 100 mA Max

Use Keithley 580 or 3706 in 4 wire dry circuit mode

Normal Force

TEST STEP	GROUP A1 Individual Contacts (8-10 min)	GROUP A2 Individual Contacts (8-10 min)
01	Contact Gaps	Contact Gaps
02	Setup Approved	Thermal Aging (Mated and Undisturbed)
03	Normal Force (in the body and soldered on PCB unless otherwise specified)	Contact Gaps
04		Setup Approved
05		Normal Force (in the body and soldered on PCB unless otherwise specified)

Thermal Aging = EIA-364-17, Test Condition 4 (105°C)

Time Condition 'B' (250 Hours)

Normal Force = EIA-364-04

(Perpendicular) Displacement Force = 12.7 mm/min ± 6 mm/min

Spec is 50 N @ 1 mm displacement

Contact Gaps / Height - No standard method. Usually measured optically

Gaps to be taken on a minimum of 20% of each part tested

FLOWCHARTS Continued

Thermal Aging

TEST STEP	GROUP A1 8 Boards Thermal Aging (Mated)
01	Contact Gaps
02	Forces - Mating / Unmating
03	LLCR-1
04	Thermal Aging (Mated and Undisturbed)
05	LLCR-2
06	Forces - Mating / Unmating
07	Contact Gaps

Thermal Aging = EIA-364-17, Test Condition 4 (105°C)

Time Condition 'B' (250 Hours)

Mating / Unmating Forces = EIA-364-13

Contact Gaps / Height - No standard method. Usually measured optically.

Gaps to be taken on a minimum of 20% of each part tested

LLCR = EIA-364-23, LLCR

20 mV Max, 100 mA Max

Use Keithley 580 or 3706 in 4 wire dry circuit mode

FLOWCHARTS Continued

Durability/Mating/Unmating/Gaps

TEST STEP	GROUP B1 8 Boards (50 position)	GROUP B2 8 Boards (40 position)	GROUP B3 8 Boards (30 position)	GROUP B4 8 Boards (20 position)
01	Contact Gaps	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating
02	LLCR-1	25 Cycles	25 Cycles	25 Cycles
03	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating
04	25 Cycles	25 Cycles (50 Total)	25 Cycles (50 Total)	25 Cycles (50 Total)
05	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating
06	25 Cycles (50 Total)	25 Cycles (75 Total)	25 Cycles (75 Total)	25 Cycles (75 Total)
07	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating
08	25 Cycles (75 Total)	25 Cycles (100 Total)	25 Cycles (100 Total)	25 Cycles (100 Total)
09	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating
10	25 Cycles (100 Total)			
11	Forces - Mating / Unmating			
12	Clean w/Compressed Air			
13	Contact Gaps			
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
Contact Gaps / Height - No standard method. Usually measured optically.
Gaps to be taken on a minimum of 20% of each part tested
LLCR = EIA-364-23, LLCR
20 mV Max, 100 mA Max
Use Keithley 580 or 3706 in 4 wire dry circuit mode

FLOWCHARTS Continued

Durability/Mating/Unmating/Gaps

TEST STEP	GROUP B1 8 Boards (50 position)	GROUP B2 8 Boards (40 position)	GROUP B3 8 Boards (30 position)	GROUP B4 8 Boards (20 position)
01	Contact Gaps	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating
02	LLCR-1	25 Cycles	25 Cycles	25 Cycles
03	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating
04	25 Cycles	25 Cycles (50 Total)	25 Cycles (50 Total)	25 Cycles (50 Total)
05	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating
06	25 Cycles (50 Total)	25 Cycles (75 Total)	25 Cycles (75 Total)	25 Cycles (75 Total)
07	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating
08	25 Cycles (75 Total)	25 Cycles (100 Total)	25 Cycles (100 Total)	25 Cycles (100 Total)
09	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating	Forces - Mating / Unmating
10	25 Cycles (100 Total)			
11	Forces - Mating / Unmating			
12	Clean w/Compressed Air			
13	Contact Gaps			
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
Contact Gaps / Height - No standard method. Usually measured optically.
Gaps to be taken on a minimum of 20% of each part tested
LLCR = EIA-364-23, LLCR
20 mV Max, 100 mA Max
Use Keithley 580 or 3706 in 4 wire dry circuit mode

FLOWCHARTS Continued

IR & DWV

TEST STEP	GROUP A1 2 Mated Sets Break Down Pin-to-Pin	GROUP A2 2 Unmated of Part # Being Tested Break Down Pin-to-Pin	GROUP A3 2 Unmated of Mating Part # Break Down Pin-to-Pin	GROUP B1 2 Mated Sets Pin-to-Pin
01	DWV/Break Down Voltage	DWV/Break Down Voltage	DWV/Break Down Voltage	IR & DWV at test voltage (on both mated sets and on each connector unmated)
02				Thermal Shock (Mated and Undisturbed)
03				IR & DWV at test voltage (on both mated sets and on each connector unmated)
04				Cyclic Humidity (Mated and Undisturbed)
05				IR & DWV at 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

Current Carrying Capacity - Double Row

TEST STEP	GROUP B1 3 Mated Assemblies 2 Contacts Powered	GROUP B2 3 Mated Assemblies 4 Contacts Powered	GROUP B3 3 Mated Assemblies 6 Contacts Powered	GROUP B4 3 Mated Assemblies 8 Contacts Powered	GROUP B5 3 Mated Assemblies All Contacts Powered
01	CCC	CCC	CCC	CCC	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

FLOWCHARTS Continued

Mechanical Shock / Vibration / LLCR

TEST STEP	GROUP A1 192 Points
01	LLCR-1
02	Shock
03	Vibration
04	LLCR-2

Mechanical Shock = EIA 364-27 Half Sine,

100 g's, 6 milliSeconds (Condition "C") each axis

Vibration = EIA 364-28, Random Vibration

7.56 g RMS, Condition VB --- 2 hours/axis

LLCR = EIA-364-23, LLCR

20 mV Max, 100 mA Max

Use Keithley 580 or 3706 in 4 wire dry circuit mode

Shock / Vibration / nanoSecond Event Detection

TEST STEP	GROUP A1 60 Points
01	Event Detection, Shock
02	Event Detection, Vibration

Mechanical Shock = EIA 364-27 Half Sine,

100 g's, 6 milliSeconds (Condition "C") each axis

Vibration = EIA 364-28, Random Vibration

7.56 g RMS, Condition VB --- 2 hours/axis

Event detection requirement during Shock / Vibration is 50 nanoseconds minimum

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°C to +85°C
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.

THERMAL:

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

HUMIDITY:

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

MECHANICAL SHOCK (Specified Pulse):

1) Reference document: EIA-364-27, *Mechanical Shock Test Procedure for Electrical Connectors*
2) Test Condition C
3) Peak Value: 100 G
4) Duration: 6 Milliseconds
5) Wave Form: Half Sine
6) Velocity: 12.3 ft/s
7) Number of Shocks: 3 Shocks / Direction, 3 Axis (18 Total)

VIBRATION:

1) Reference document: EIA-364-28, *Vibration Test Procedure for Electrical Connectors*
2) Test Condition V, Letter B
3) Power Spectral Density: 0.04 G^2 / Hz
4) G 'RMS': 7.56
5) Frequency: 50 to 2000 Hz
6) Duration: 2.0 Hours per axis (3 axis total)

NANOSECOND-EVENT DETECTION:

1) Reference document: EIA-364-87, *Nanosecond-Event Detection for Electrical Connectors*
2) Prior to test, the samples were characterized to assure the low nanosecond event being monitored will trigger the detector.
3) After characterization it was determined the test samples could be monitored for 50 nanosecond events

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. 80^{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.

CONTACT GAPS:

1) Gaps above the surrounding plastic surface were measured before and after stressing the contacts (e.g. thermal aging, mechanical cycling, etc.).
2) Typically, all contacts on the connector are measured.

MATING/UNMATING:

1) Reference document: EIA-364-13, *Mating and Unmating Forces Test Procedure for Electrical Connectors*.
2) The full insertion position was to within 0.003” to 0.004” of the plug bottoming out in the receptacle to prevent damage to the system under test.
3) One of the mating parts is secured to a floating X-Y table to prevent damage during cycling.

ATTRIBUTE DEFINITIONS Continued

The following is a brief, simplified description of attributes.

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.

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:
3) When the specified test voltage is applied (VDC), the insulation resistance shall not be less than 5000 megohms.

DIELECTRIC WITHSTANDING VOLTAGE (DWV):

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

1) PROCEDURE:
   a. Reference document: EIA-364-20, *Withstanding Voltage Test Procedure for Electrical Connectors*.
   b. Test Conditions:
      i. Between Adjacent Contacts or Signal-to-Ground
      ii. 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).

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

ATTRIBUTE DEFINITIONS Continued

The following is a brief, simplified description of attributes.

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 10:1.
        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.

RESULTS

Temperature Rise, CCC at a 20% de-rating

- **CCC for a 30°C Temperature Rise----------1.9A per contact with 2 adjacent contacts powered**
- **CCC for a 30°C Temperature Rise----------1.4A per contact with 4 adjacent contacts powered**
- **CCC for a 30°C Temperature Rise----------1.2A per contact with 6 adjacent contacts powered**
- **CCC for a 30°C Temperature Rise----------1.0A per contact with 8 adjacent contacts powered**
- **CCC for a 30°C Temperature Rise----------0.4A per contact with all adjacent contacts powered**

Contact Gaps

Normal Force Group

Group A1

- **Initial**
  - **Min---------- 0.0237 in**
  - **Max ---------- 0.0267 in**

Group A2

- **Initial**
  - **Min---------- 0.0243 in**
  - **Max ---------- 0.0264 in**
- **Thermal**
  - **Min---------- 0.0275 in**
  - **Max ---------- 0.0290 in**

Thermal Aging Group

- **Initial**
  - **Min---------- 0.0238 in**
  - **Max ---------- 0.0273 in**
- **Thermal**
  - **Min---------- 0.0269 in**
  - **Max ---------- 0.0294 in**

Mating\Unmating Durability Group

LSHM-150-01-F-RH-A-N\ LSHM-150-01-F-DH-A-N

- **Initial**
  - **Min---------- 0.0236 in**
  - **Max ---------- 0.0271 in**
- **After 100 Cycles**
  - **Min---------- 0.0254 in**
  - **Max ---------- 0.0289 in**

LSHM-150-01-F-RH-A-N\ LSHM-150-01-F-DV-A-N

- **Initial**
  - **Min---------- 0.0215 in**
  - **Max ---------- 0.0267 in**
- **After 100 Cycles**
  - **Min---------- 0.0224 in**
  - **Max ---------- 0.0259 in**

RESULTS Continued

Mating – Unmating Forces

Thermal Aging Group

- **Initial**
  - **Mating**
    - **Min ----------12.67 Lbs**
    - **Max----------15.16 Lbs**
  - **Unmating**
    - **Min ----------16.13 Lbs**
    - **Max----------18.40 Lbs**
- **Thermal**
  - **Mating**
    - **Min ---------- 7.61 Lbs**
    - **Max----------10.77 Lbs**
  - **Unmating**
    - **Min ----------10.67 Lbs**
    - **Max----------12.72 Lbs**

RESULTS Continued

Mating – Unmating Forces

Mating\Unmating Durability Group
LSHM-150-01-F-RH-A-N\ LSHM-150-01-F-DH-A-N

- **Initial**
  - **Mating**
    - **Min ----------10.63 Lbs**
    - **Max----------14.27 Lbs**
  - **Unmating**
    - **Min ----------14.10 Lbs**
    - **Max----------16.78 Lbs**
- **After 25 Cycles**
  - **Mating**
    - **Min ----------11.21 Lbs**
    - **Max----------13.46 Lbs**
  - **Unmating**
    - **Min ----------14.07 Lbs**
    - **Max----------17.01 Lbs**
- **After 50 Cycles**
  - **Mating**
    - **Min ----------12.66 Lbs**
    - **Max----------14.74 Lbs**
  - **Unmating**
    - **Min ----------14.67 Lbs**
    - **Max----------18.21 Lbs**
- **After 75 Cycles**
  - **Mating**
    - **Min ----------13.70 Lbs**
    - **Max----------16.01 Lbs**
  - **Unmating**
    - **Min ----------13.28 Lbs**
    - **Max----------18.71 Lbs**
- **After 100 Cycles**
  - **Mating**
    - **Min ----------14.49 Lbs**
    - **Max----------16.23 Lbs**
  - **Unmating**
    - **Min ----------13.83 Lbs**
    - **Max----------18.48 Lbs**
- **Humidity**
  - **Mating**
    - **Min ---------- 8.55 Lbs**
    - **Max----------10.82 Lbs**
  - **Unmating**
    - **Min ---------- 9.96 Lbs**
    - **Max----------13.33 Lbs**

RESULTS Continued

Mating – Unmating Forces

Mating\Unmating Durability Group

LSHM-150-01-F-RH-A-N\ LSHM-150-01-F-DV-A-N

- **Initial**
  - **Mating**
    - **Min ----------11.30 Lbs**
    - **Max----------14.65 Lbs**
  - **Unmating**
    - **Min ----------13.10 Lbs**
    - **Max----------18.50 Lbs**
- **After 25 Cycles**
  - **Mating**
    - **Min ----------12.24 Lbs**
    - **Max----------13.80 Lbs**
  - **Unmating**
    - **Min ----------14.80 Lbs**
    - **Max----------17.23 Lbs**
- **After 50 Cycles**
  - **Mating**
    - **Min ----------12.74 Lbs**
    - **Max----------14.96 Lbs**
  - **Unmating**
    - **Min ----------15.33 Lbs**
    - **Max----------17.80 Lbs**
- **After 75 Cycles**
  - **Mating**
    - **Min ----------12.95 Lbs**
    - **Max----------16.01 Lbs**
  - **Unmating**
    - **Min ----------15.45 Lbs**
    - **Max----------18.04 Lbs**
- **After 100 Cycles**
  - **Mating**
    - **Min ----------13.72 Lbs**
    - **Max----------16.25 Lbs**
  - **Unmating**
    - **Min ----------15.83 Lbs**
    - **Max----------18.36 Lbs**
- **Humidity**
  - **Mating**
    - **Min ---------- 7.90 Lbs**
    - **Max----------10.61 Lbs**
  - **Unmating**
    - **Min ----------10.64 Lbs**
    - **Max----------12.79 Lbs**

RESULTS Continued

Mating\Unmating Basic
LSHM-140-01-F-RH-A-N\ LSHM-140-01-F-DH-A-N

- **Initial**
  - **Mating**
    - **Min ---------- 9.77 Lbs**
    - **Max----------12.04 Lbs**
  - **Unmating**
    - **Min ----------10.76 Lbs**
    - **Max----------13.38 Lbs**
- **After 25 Cycles**
  - **Mating**
    - **Min ---------- 9.94 Lbs**
    - **Max----------12.54 Lbs**
  - **Unmating**
    - **Min ----------10.35 Lbs**
    - **Max----------13.85 Lbs**
- **After 50 Cycles**
  - **Mating**
    - **Min ----------10.48 Lbs**
    - **Max----------13.22 Lbs**
  - **Unmating**
    - **Min ----------10.86 Lbs**
    - **Max----------14.85 Lbs**
- **After 75 Cycles**
  - **Mating**
    - **Min ----------10.59 Lbs**
    - **Max----------14.17 Lbs**
  - **Unmating**
    - **Min ----------10.99 Lbs**
    - **Max----------15.51 Lbs**
- **After 100 Cycles**
  - **Mating**
    - **Min ----------11.21 Lbs**
    - **Max----------15.19 Lbs**
  - **Unmating**
    - **Min ----------11.50 Lbs**
    - **Max----------15.93 Lbs**

RESULTS Continued

Mating\Unmating Basic
LSHM-130-01-F-RH-A-N\ LSHM-130-01-F-DH-A-N

- **Initial**
  - **Mating**
    - **Min ---------- 9.31 Lbs**
    - **Max----------10.40 Lbs**
  - **Unmating**
    - **Min ----------11.18 Lbs**
    - **Max----------12.52 Lbs**
- **After 25 Cycles**
  - **Mating**
    - **Min ---------- 9.39 Lbs**
    - **Max----------10.85 Lbs**
  - **Unmating**
    - **Min ----------10.87 Lbs**
    - **Max----------12.74 Lbs**
- **After 50 Cycles**
  - **Mating**
    - **Min ---------- 9.83 Lbs**
    - **Max----------11.22 Lbs**
  - **Unmating**
    - **Min ----------11.22 Lbs**
    - **Max----------12.98 Lbs**
- **After 75 Cycles**
  - **Mating**
    - **Min ----------10.37 Lbs**
    - **Max----------11.83 Lbs**
  - **Unmating**
    - **Min ----------11.59 Lbs**
    - **Max----------13.52 Lbs**
- **After 100 Cycles**
  - **Mating**
    - **Min ----------10.60 Lbs**
    - **Max----------12.15 Lbs**
  - **Unmating**
    - **Min ----------12.03 Lbs**
    - **Max----------14.01 Lbs**

RESULTS Continued

Mating\Unmating Basic
LSHM-120-01-F-RH-A-N\ LSHM-120-01-F-DH-A-N

- **Initial**
  - **Mating**
    - **Min ---------- 4.33 Lbs**
    - **Max---------- 5.57 Lbs**
  - **Unmating**
    - **Min ---------- 5.46 Lbs**
    - **Max---------- 6.96 Lbs**
- **After 25 Cycles**
  - **Mating**
    - **Min ---------- 4.85 Lbs**
    - **Max---------- 5.91 Lbs**
  - **Unmating**
    - **Min ---------- 5.73 Lbs**
    - **Max---------- 7.24 Lbs**
- **After 50 Cycles**
  - **Mating**
    - **Min ---------- 5.22 Lbs**
    - **Max---------- 6.35 Lbs**
  - **Unmating**
    - **Min ---------- 6.14 Lbs**
    - **Max---------- 7.68 Lbs**
- **After 75 Cycles**
  - **Mating**
    - **Min ---------- 5.59 Lbs**
    - **Max---------- 7.44 Lbs**
  - **Unmating**
    - **Min ---------- 6.38 Lbs**
    - **Max---------- 7.93 Lbs**
- **After 100 Cycles**
  - **Mating**
    - **Min ---------- 5.77 Lbs**
    - **Max---------- 7.94 Lbs**
  - **Unmating**
    - **Min ---------- 6.74 Lbs**
    - **Max---------- 8.07 Lbs**

RESULTS Continued

Mating\Unmating Basic
LSHM-140-01-F-RH-A-N\ LSHM-140-01-F-DV-A-N

- **Initial**
  - **Mating**
    - **Min ---------- 9.10 Lbs**
    - **Max----------10.75 Lbs**
  - **Unmating**
    - **Min ----------11.43 Lbs**
    - **Max----------12.87 Lbs**
- **After 25 Cycles**
  - **Mating**
    - **Min ---------- 10.72 Lbs**
    - **Max----------11.79 Lbs**
  - **Unmating**
    - **Min ----------13.28 Lbs**
    - **Max----------14.28 Lbs**
- **After 50 Cycles**
  - **Mating**
    - **Min ----------11.56 Lbs**
    - **Max----------12.98 Lbs**
  - **Unmating**
    - **Min ----------13.86 Lbs**
    - **Max----------15.19 Lbs**
- **After 75 Cycles**
  - **Mating**
    - **Min ----------12.61 Lbs**
    - **Max----------14.30 Lbs**
  - **Unmating**
    - **Min ---------- 14.77 Lbs**
    - **Max----------15.96 Lbs**
- **After 100 Cycles**
  - **Mating**
    - **Min ----------13.25 Lbs**
    - **Max----------15.17 Lbs**
  - **Unmating**
    - **Min ----------15.26 Lbs**
    - **Max----------16.93 Lbs**

RESULTS Continued

Mating\Unmating Basic
LSHM-130-01-F-RH-A-N\ LSHM-130-01-F-DV-A-N

- **Initial**
  - **Mating**
    - **Min ---------- 8.29 Lbs**
    - **Max---------- 9.33 Lbs**
  - **Unmating**
    - **Min ---------- 9.77 Lbs**
    - **Max----------11.08 Lbs**
- **After 25 Cycles**
  - **Mating**
    - **Min ---------- 7.80 Lbs**
    - **Max---------- 8.92 Lbs**
  - **Unmating**
    - **Min ---------- 8.85 Lbs**
    - **Max----------10.92 Lbs**
- **After 50 Cycles**
  - **Mating**
    - **Min ---------- 8.12 Lbs**
    - **Max---------- 9.24 Lbs**
  - **Unmating**
    - **Min ----------10.05 Lbs**
    - **Max----------11.25 Lbs**
- **After 75 Cycles**
  - **Mating**
    - **Min ---------- 8.41 Lbs**
    - **Max---------- 9.51 Lbs**
  - **Unmating**
    - **Min ----------10.27 Lbs**
    - **Max----------11.39 Lbs**
- **After 100 Cycles**
  - **Mating**
    - **Min ---------- 8.79 Lbs**
    - **Max----------10.07 Lbs**
  - **Unmating**
    - **Min ----------10.58 Lbs**
    - **Max----------11.77 Lbs**

RESULTS Continued

Mating\Unmating Basic
LSHM-120-01-F-RH-A-N\ LSHM-120-01-F-DV-A-N

- **Initial**
  - **Mating**
    - **Min ---------- 5.13 Lbs**
    - **Max---------- 6.08 Lbs**
  - **Unmating**
    - **Min ---------- 5.82 Lbs**
    - **Max---------- 6.84 Lbs**
- **After 25 Cycles**
  - **Mating**
    - **Min ---------- 5.47 Lbs**
    - **Max---------- 6.35 Lbs**
  - **Unmating**
    - **Min ---------- 6.17 Lbs**
    - **Max---------- 7.17 Lbs**
- **After 50 Cycles**
  - **Mating**
    - **Min ---------- 5.92 Lbs**
    - **Max---------- 6.75 Lbs**
  - **Unmating**
    - **Min ---------- 6.71 Lbs**
    - **Max---------- 9.84 Lbs**
- **After 75 Cycles**
  - **Mating**
    - **Min ---------- 6.24 Lbs**
    - **Max---------- 7.02 Lbs**
  - **Unmating**
    - **Min ---------- 7.02 Lbs**
    - **Max---------- 8.04 Lbs**
- **After 100 Cycles**
  - **Mating**
    - **Min ---------- 6.84 Lbs**
    - **Max---------- 7.85 Lbs**
  - **Unmating**
    - **Min ---------- 7.77 Lbs**
    - **Max---------- 8.89 Lbs**

Normal Force at 0.210 mm deflection

- **Initial**
  - **Min----------93.60 gf Set ----- 0.0060 mm**
  - **Max ----------98.00 gf Set ----- 0.0110 mm**
- **Thermal**
  - **Min----------93.50 gf Set------ 0.0050 mm**
  - **Max ---------- 100.30 gf Set------ 0.0080 mm**
  -

RESULTS Continued

Insulation Resistance minimums, IR

- **Initial**
  - **Mated ---------- 10000Meg Ω ---------- Pass**
  - **Unmated ---------- 10000Meg Ω ---------- Pass**
- **Thermal**
  - **Mated ---------- 10000Meg Ω ---------- Pass**
  - **Unmated ---------- 10000Meg Ω ---------- Pass**
- **Humidity**
  - **Mated ---------- 8977Meg Ω ---------- Pass**
  - **Unmated ---------- 10000Meg Ω ---------- Pass**

Dielectric Withstanding Voltage minimums, DWV

- **Minimums**
  - **Breakdown Voltage ---------- 625VAC**
  - **Test Voltage ---------- 496VAC**
  - **Working Voltage ---------- 156VAC**
- **Initial DWV ---------- Passed**
- **Thermal DWV ---------- Passed**
- **Humidity DWV ---------- Passed**

LLCR Gas Tight (184 LLCR test points)

- **Initial ---------- 32.28 mOhms Max**
- **Gas-Tight**
  - **<= +5.0 mOhms ---------- 184 Points ---------- Stable**
  - **+5.1 to +10.0 mOhms ---------- 0Points ---------- 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 Thermal Aging (184 LLCR test points)

- **Initial ---------- 31.76 mOhms Max**
- **Thermal**
  - **<= +5.0 mOhms ---------- 184 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

LLCR Durability (184 LLCR test points)
LSHM-150-01-F-RH-A-N\ LSHM-150-01-F-DH-A-N

- **Initial ---------- 31.91 mOhms Max**
- **Durability, 100 Cycles**
  - **<= +5.0 mOhms ---------- 175 Points ---------- Stable**
  - **+5.1 to +10.0 mOhms ---------- 9 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 ---------- 162 Points ---------- Stable**
  - **+5.1 to +10.0 mOhms ---------- 22 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 ---------- 173 Points ---------- Stable**
  - **+5.1 to +10.0 mOhms ---------- 11 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 (192 LLCR test points)
LSHM-150-01-F-RH-A-N\ LSHM-150-01-F-DV-A-N

- **Initial ---------- 31.06mOhms Max**
- **Durability, 100 Cycles**
  - **<= +5.0 mOhms ---------- 192 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 ---------- 192 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 ---------- 190 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**

RESULTS Continued

LLCR Mechanical Shock & Random Vibration (184 LLCR test points)

- **Initial ---------- 32.85mOhms Max**
- **Shock & Vibration**
  - **<= +5.0 mOhms ---------- 184 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**

Mechanical Shock & Random Vibration:

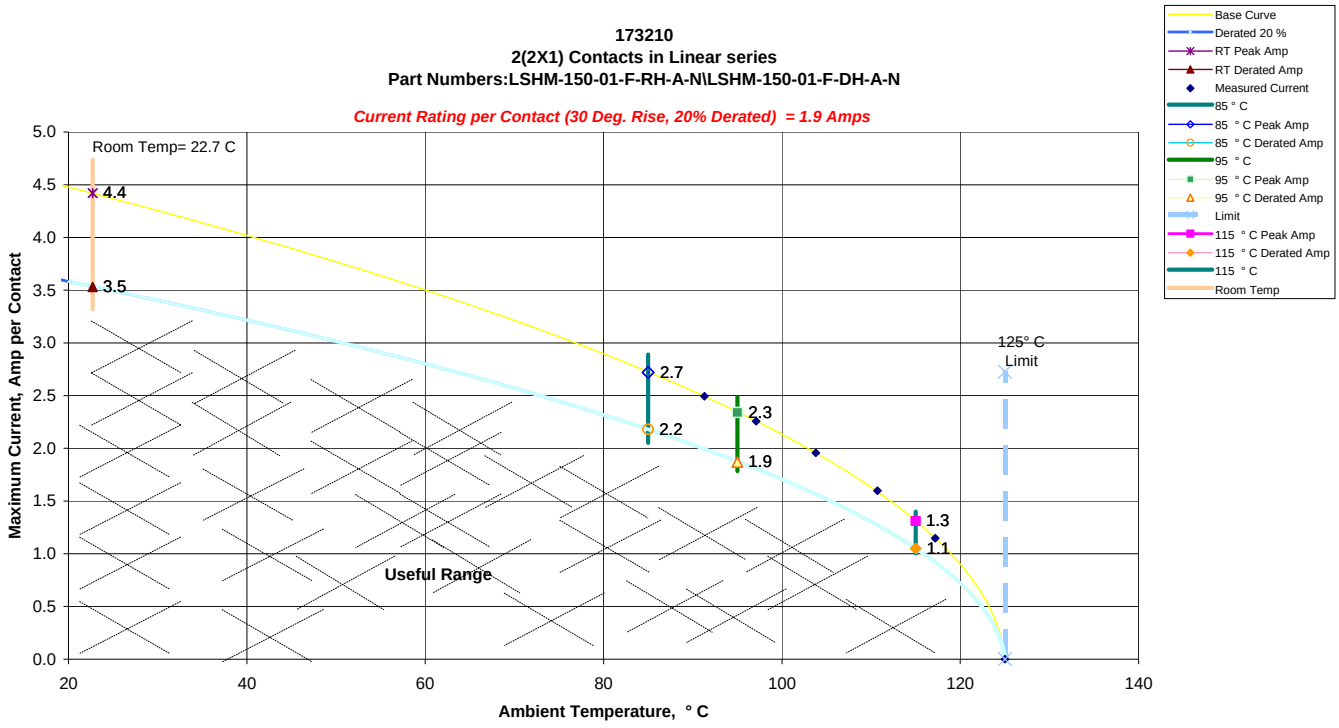
- **Shock**
  - **No Damage ---------- ---------- Passed**
  - **50 Nanoseconds ---------- ---------- Passed**
- **Vibration**
  - **No Damage ---------- ---------- Passed**
  - **50 Nanoseconds ---------- ---------- Passed**

DATA SUMMARIES

TEMPERATURE RISE (Current Carrying Capacity, CCC):

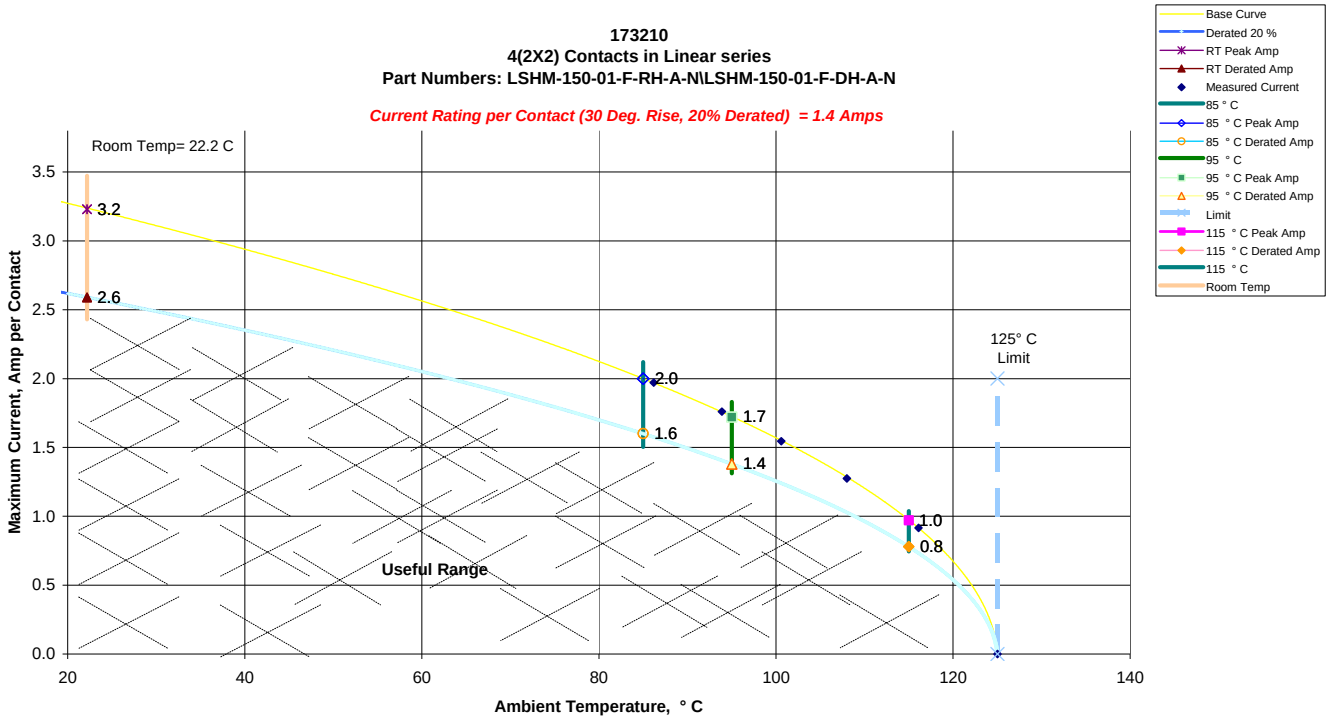
1) High quality thermocouples whose temperature slopes track one another were used for temperature monitoring.
2) The thermocouples were placed at a location to sense the maximum temperature generated during testing.
3) Temperature readings recorded are those for which three successive readings, 15 minutes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

    a. Linear configuration with 2 adjacent conductors/contacts powered



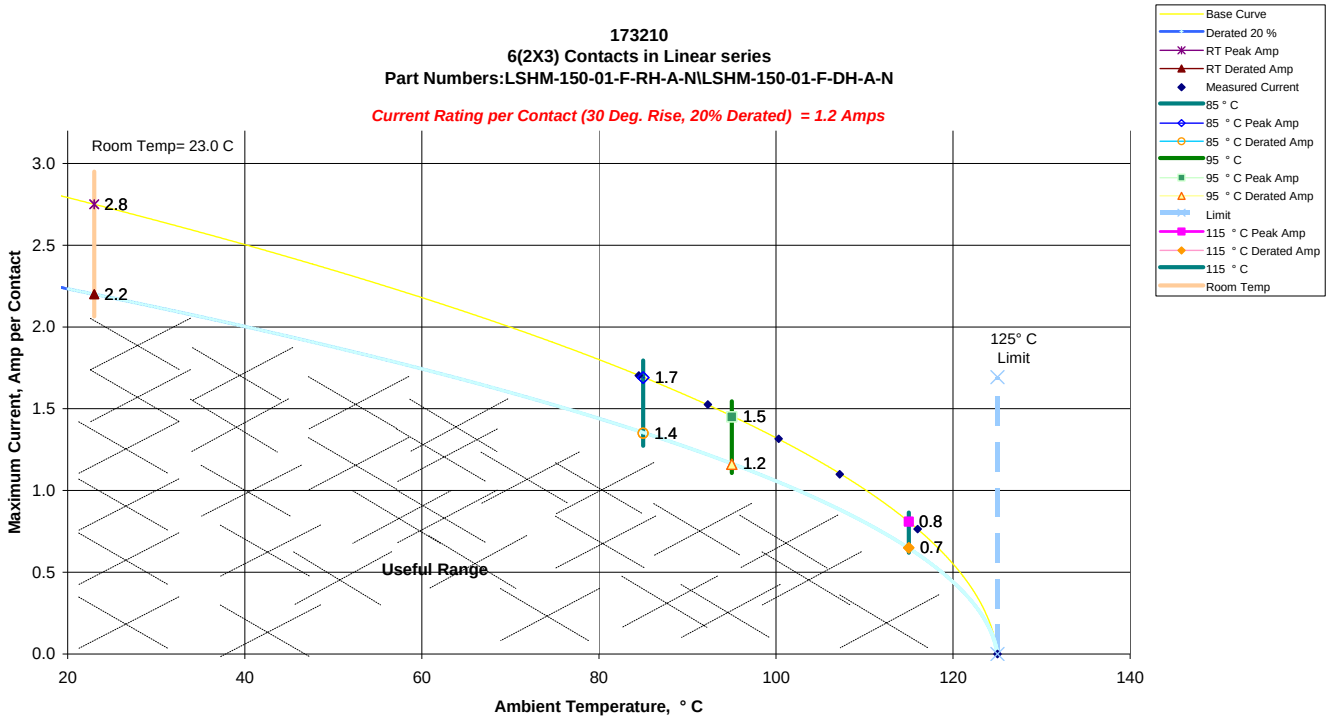
DATA SUMMARIES Continued

b. Linear configuration with 4 adjacent conductors/contacts powered



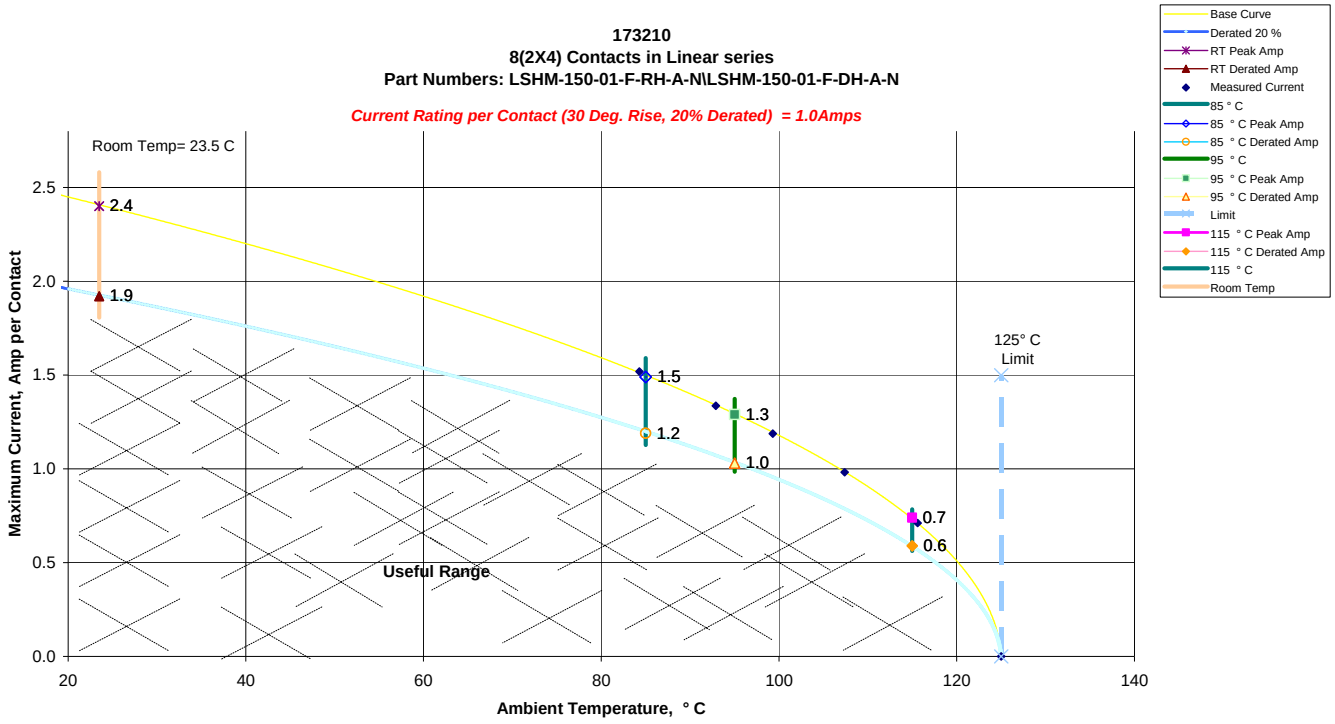
DATA SUMMARIES Continued

c. Linear configuration with 6 adjacent conductors/contacts powered



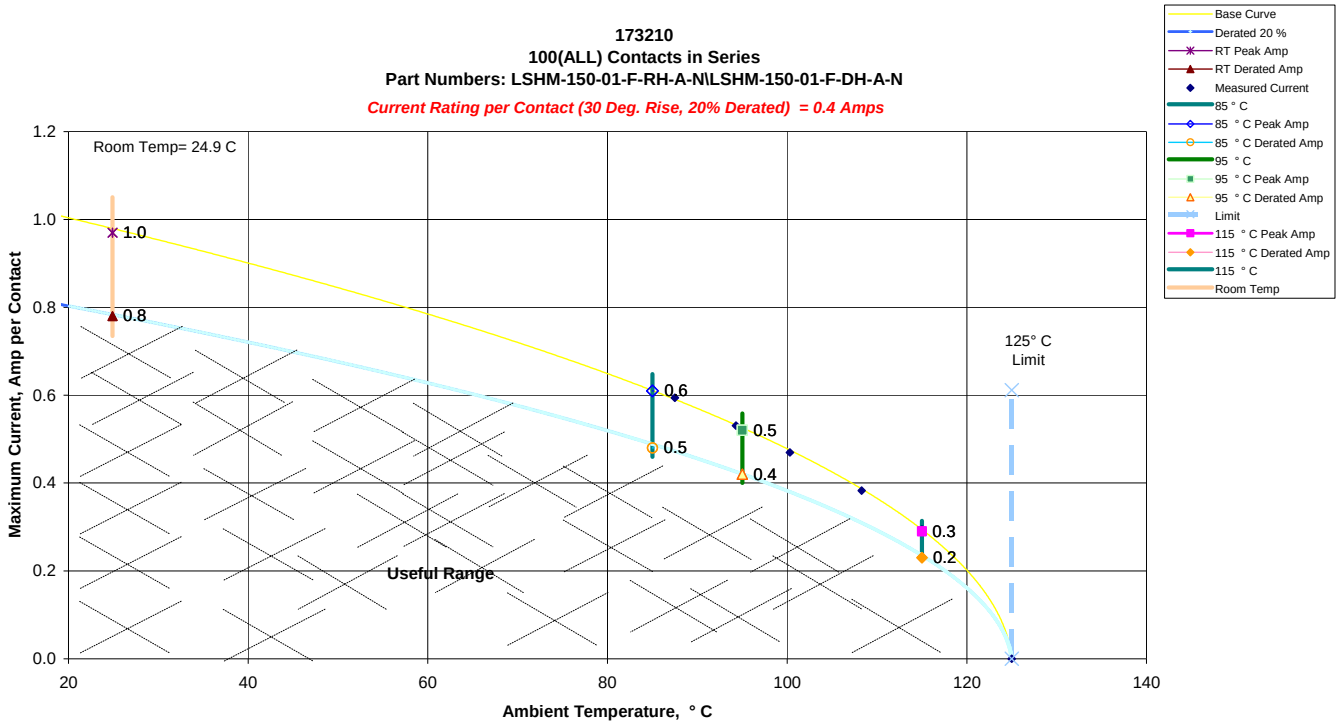
DATA SUMMARIES Continued

d. Linear configuration with 8 adjacent conductors/contacts powered



DATA SUMMARIES Continued

e. Linear configuration with all adjacent conductors/contacts powered



DATA SUMMARIES Continued

CONTACT GAPS:

Normal Force Group

Group A1

Initial	
Pin Type 1	
Signal	
Nominal	0.0264
Hi Limit	0.0303
Lo Limit	0.0225
Min	0.0237
Max	0.0267
Avg	0.0253
St. Dev.	0.0008
Count	10

Group A2

Initial		After Thermal	
Pin Type 1		Pin Type 1	
Signal		Signal	
Nominal	0.0264	Nominal	0.0264
Hi Limit	0.0303	Hi Limit	0.0303
Lo Limit	0.0225	Lo Limit	0.0225
Min	0.0243	Min	0.0275
Max	0.0264	Max	0.029
Avg	0.0255	Avg	0.0281
St. Dev.	0.0008	St. Dev.	0.0005
Count	10	Count	10

Thermal Aging Group

Initial		After Thermal	
Pin Type 1		Pin Type 1	
Signal		Signal	
Nominal	0.0264	Nominal	0.0264
Hi Limit	0.0303	Hi Limit	0.0303
Lo Limit	0.0225	Lo Limit	0.0225
Min	0.0238	Min	0.0269
Max	0.0273	Max	0.0294
Avg	0.0255	Avg	0.0281
St. Dev.	0.0007	St. Dev.	0.0006
Count	80	Count	80

DATA SUMMARIES Continued

CONTACT GAPS:

Mating\Unmating Durability Group

LSHM-150-01-F-RH-A-N\ LSHM-150-01-F-DH-A-N

Initial		After 100 cycles	
Pin Type 1		Pin Type 1	
Signal		Signal	
Nominal	0.0264	Nominal	0.0264
Hi Limit	0.0303	Hi Limit	0.0303
Lo Limit	0.0225	Lo Limit	0.0225
Min	0.0236	Min	0.0254
Max	0.0271	Max	0.0289
Avg	0.0254	Avg	0.0269
St. Dev.	0.0007	St. Dev.	0.0008
Count	80	Count	80

LSHM-150-01-F-RH-A-N\ LSHM-150-01-F-DV-A-N

Initial		After 100 cycles	
Pin Type 1		Pin Type 1	
Signal		Signal	
Nominal	0.0264	Nominal	0.0264
Hi Limit	0.0303	Hi Limit	0.0303
Lo Limit	0.0225	Lo Limit	0.0225
Min	0.0215	Min	0.0224
Max	0.0267	Max	0.0259
Avg	0.0242	Avg	0.0242
St. Dev.	0.0017	St. Dev.	0.0009
Count	80	Count	80

DATA SUMMARIES Continued

MATING/UNMATING:

Thermal Aging Group

	Initial				After Thermals			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	56.36	12.67	71.75	16.13	33.85	7.61	47.46	10.67
Maximum	67.43	15.16	81.84	18.40	47.90	10.77	56.58	12.72
Average	62.13	**13.97**	75.50	**16.98**	43.09	**9.69**	53.36	**12.00**
St Dev	4.07	0.92	3.40	0.76	4.36	0.98	3.28	0.74
Count	8	8	8	8	8	8	8	8

Mating\Unmating Durability Group
LSHM-150-01-F-RH-A-N\ LSHM-150-01-F-DH-A-N

	Initial				After 25 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	47.28	10.63	62.72	14.10	49.86	11.21	62.58	14.07
Maximum	63.47	14.27	74.64	16.78	59.87	13.46	75.66	17.01
Average	54.29	**12.21**	69.21	**15.56**	54.30	**12.21**	66.66	**14.99**
St Dev	5.08	1.14	4.50	1.01	3.28	0.74	4.17	0.94
Count	8	8	8	8	8	8	8	8
	After 50 Cycles				After 75 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	56.31	12.66	65.25	14.67	60.94	13.70	59.07	13.28
Maximum	65.56	14.74	81.00	18.21	71.21	16.01	83.22	18.71
Average	59.87	**13.46**	71.26	**16.02**	64.67	**14.54**	72.99	**16.41**
St Dev	3.00	0.67	5.19	1.17	3.38	0.76	7.99	1.80
Count	8	8	8	8	8	8	8	8
	After 100 Cycles				After Humidity			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	64.45	14.49	61.52	13.83	38.03	8.55	44.30	9.96
Maximum	72.19	16.23	82.20	18.48	48.13	10.82	59.29	13.33
Average	68.13	**15.32**	74.66	**16.79**	42.93	**9.65**	50.92	**11.45**
St Dev	2.73	0.61	6.92	1.56	3.76	0.84	4.87	1.09
Count	8	8	8	8	8	8	8	8

DATA SUMMARIES Continued

MATING/UNMATING:

Mating\Unmating Durability Group
LSHM-150-01-F-RH-A-N\ LSHM-150-01-F-DV-A-N

	Initial				After 25 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	50.26	11.30	58.27	13.10	54.44	12.24	65.83	14.80
Maximum	65.16	14.65	82.29	18.50	61.38	13.80	76.64	17.23
Average	60.69	**13.65**	70.53	**15.86**	57.96	**13.03**	70.17	**15.78**
St Dev	4.71	1.06	8.25	1.86	2.42	0.54	3.86	0.87
Count	8	8	8	8	8	8	8	8

	After 50 Cycles				After 75 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	56.67	12.74	68.19	15.33	57.60	12.95	68.72	15.45
Maximum	66.54	14.96	79.17	17.80	71.21	16.01	80.24	18.04
Average	62.38	**14.02**	72.45	**16.29**	65.46	**14.72**	73.95	**16.63**
St Dev	3.26	0.73	4.11	0.92	4.10	0.92	3.90	0.88
Count	8	8	8	8	8	8	8	8

	After 100 Cycles				After Humidity			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	61.03	13.72	70.41	15.83	35.14	7.90	47.33	10.64
Maximum	72.28	16.25	81.67	18.36	47.19	10.61	56.89	12.79
Average	68.04	**15.30**	75.78	**17.04**	44.34	**9.97**	54.47	**12.25**
St Dev	3.69	0.83	3.80	0.85	3.79	0.85	3.20	0.72
Count	8	8	8	8	8	8	8	8

DATA SUMMARIES Continued

Mating\Unmating Basic
LSHM-140-01-F-RH-A-N\ LSHM-140-01-F-DH-A-N

	Initial				After 25 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	43.46	9.77	47.86	10.76	44.21	9.94	46.04	10.35
Maximum	53.55	12.04	59.51	13.38	55.78	12.54	61.60	13.85
Average	48.73	**10.96**	55.51	**12.48**	52.07	**11.71**	57.56	**12.94**
St Dev	3.12	0.70	3.77	0.85	3.56	0.80	5.17	1.16
Count	8	8	8	8	8	8	8	8

	After 50 Cycles				After 75 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	46.62	10.48	48.31	10.86	47.10	10.59	48.88	10.99
Maximum	58.80	13.22	66.05	14.85	63.03	14.17	68.99	15.51
Average	54.79	**12.32**	60.31	**13.56**	58.25	**13.10**	63.43	**14.26**
St Dev	4.04	0.91	5.67	1.27	5.09	1.14	6.34	1.42
Count	8	8	8	8	8	8	8	8

	After 100 Cycles			
	Mating		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	49.86	11.21	51.15	11.50
Maximum	67.57	15.19	70.86	15.93
Average	61.14	**13.75**	65.73	**14.78**
St Dev	5.25	1.18	6.19	1.39
Count	8	8	8	8

DATA SUMMARIES Continued

MATING/UNMATING:

Mating\Unmating Basic
LSHM-130-01-F-RH-A-N\ LSHM-130-01-F-DH-A-N

	Initial				After 25 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	41.41	9.31	49.73	11.18	41.77	9.39	48.35	10.87
Maximum	46.26	10.40	55.69	12.52	48.26	10.85	56.67	12.74
Average	44.17	**9.93**	52.75	**11.86**	45.11	**10.14**	53.03	**11.92**
St Dev	2.04	0.46	1.61	0.36	2.49	0.56	2.46	0.55
Count	8	8	8	8	8	8	8	8

	After 50 Cycles				After 75 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	43.72	9.83	49.91	11.22	46.13	10.37	51.55	11.59
Maximum	49.91	11.22	57.74	12.98	52.62	11.83	60.14	13.52
Average	46.84	**10.53**	54.42	**12.24**	48.37	**10.87**	55.75	**12.53**
St Dev	2.05	0.46	2.37	0.53	2.01	0.45	2.75	0.62
Count	8	8	8	8	8	8	8	8

	After 100 Cycles			
	Mating		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	47.15	10.60	53.51	12.03
Maximum	54.04	12.15	62.32	14.01
Average	49.33	**11.09**	57.34	**12.89**
St Dev	2.33	0.52	2.52	0.57
Count	8	8	8	8

DATA SUMMARIES Continued

MATING/UNMATING:

Mating\Unmating Basic
LSHM-120-01-F-RH-A-N\ LSHM-120-01-F-DH-A-N

	Initial				After 25 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	19.26	4.33	24.29	5.46	21.57	4.85	25.49	5.73
Maximum	24.78	5.57	30.96	6.96	26.29	5.91	32.20	7.24
Average	21.14	**4.75**	27.39	**6.16**	23.41	**5.26**	29.23	**6.57**
St Dev	1.74	0.39	2.35	0.53	1.72	0.39	2.39	0.54
Count	8	8	8	8	8	8	8	8

	After 50 Cycles				After 75 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	23.22	5.22	27.31	6.14	24.86	5.59	28.38	6.38
Maximum	28.24	6.35	34.16	7.68	33.09	7.44	35.27	7.93
Average	25.45	**5.72**	31.02	**6.97**	28.26	**6.35**	32.18	**7.23**
St Dev	1.61	0.36	1.99	0.45	2.41	0.54	1.97	0.44
Count	8	8	8	8	8	8	8	8

	After 100 Cycles			
	Mating		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	25.66	5.77	29.98	6.74
Maximum	35.32	7.94	35.90	8.07
Average	29.77	**6.69**	33.16	**7.46**
St Dev	2.67	0.60	1.76	0.40
Count	8	8	8	8

DATA SUMMARIES Continued

Mating\Unmating Basic
LSHM-140-01-F-RH-A-N\ LSHM-140-01-F-DV-A-N

	Initial				After 25 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	40.48	9.10	50.84	11.43	47.68	10.72	59.07	13.28
Maximum	47.82	10.75	57.25	12.87	52.44	11.79	63.52	14.28
Average	44.91	**10.10**	53.45	**12.02**	50.70	**11.40**	62.04	**13.95**
St Dev	2.90	0.65	2.21	0.50	1.58	0.36	1.57	0.35
Count	8	8	8	8	8	8	8	8

	After 50 Cycles				After 75 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	51.42	11.56	61.65	13.86	56.09	12.61	65.70	14.77
Maximum	57.74	12.98	67.57	15.19	63.61	14.30	70.99	15.96
Average	55.70	**12.52**	65.71	**14.77**	59.95	**13.48**	68.99	**15.51**
St Dev	1.97	0.44	1.90	0.43	2.74	0.62	1.93	0.43
Count	8	8	8	8	8	8	8	8

	After 100 Cycles			
	Mating		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	58.94	13.25	67.88	15.26
Maximum	67.48	15.17	75.30	16.93
Average	63.83	**14.35**	72.06	**16.20**
St Dev	3.14	0.71	2.54	0.57
Count	8	8	8	8

DATA SUMMARIES Continued

MATING/UNMATING:

Mating\Unmating Basic
LSHM-130-01-F-RH-A-N\ LSHM-130-01-F-DV-A-N

	Initial				After 25 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	36.87	8.29	43.46	9.77	34.69	7.80	39.36	8.85
Maximum	41.50	9.33	49.28	11.08	39.68	8.92	48.57	10.92
Average	38.43	**8.64**	45.92	**10.32**	37.49	**8.43**	44.84	**10.08**
St Dev	1.87	0.42	2.22	0.50	1.59	0.36	3.02	0.68
Count	8	8	8	8	8	8	8	8

	After 50 Cycles				After 75 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	36.12	8.12	44.70	10.05	37.41	8.41	45.68	10.27
Maximum	41.10	9.24	50.04	11.25	42.30	9.51	50.66	11.39
Average	39.06	**8.78**	47.07	**10.58**	40.30	**9.06**	48.13	**10.82**
St Dev	1.68	0.38	2.10	0.47	1.55	0.35	1.78	0.40
Count	8	8	8	8	8	8	8	8

	After 100 Cycles			
	Mating		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	39.10	8.79	47.06	10.58
Maximum	44.79	10.07	52.35	11.77
Average	42.07	**9.46**	49.51	**11.13**
St Dev	1.69	0.38	2.18	0.49
Count	8	8	8	8

DATA SUMMARIES Continued

MATING/UNMATING:

Mating\Unmating Basic
LSHM-120-01-F-RH-A-N\ LSHM-120-01-F-DV-A-N

	Initial				After 25 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	22.82	5.13	25.89	5.82	24.33	5.47	27.44	6.17
Maximum	27.04	6.08	30.42	6.84	28.24	6.35	31.89	7.17
Average	24.19	**5.44**	27.81	**6.25**	25.50	**5.73**	29.44	**6.62**
St Dev	1.41	0.32	1.31	0.29	1.30	0.29	1.32	0.30
Count	8	8	8	8	8	8	8	8

	After 50 Cycles				After 75 Cycles			
	Mating		**Unmating**		**Mating**		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	26.33	5.92	29.85	6.71	27.76	6.24	31.22	7.02
Maximum	30.02	6.75	43.77	9.84	31.22	7.02	35.76	8.04
Average	27.51	**6.19**	32.82	**7.38**	29.23	**6.57**	32.97	**7.41**
St Dev	1.23	0.28	4.68	1.05	1.09	0.25	1.63	0.37
Count	8	8	8	8	8	8	8	8

	After 100 Cycles			
	Mating		**Unmating**	
	Newtons	Force (Lbs)	Newtons	Force (Lbs)
Minimum	30.42	6.84	34.56	7.77
Maximum	34.92	7.85	39.54	8.89
Average	31.47	**7.08**	36.52	**8.21**
St Dev	1.51	0.34	1.55	0.35
Count	8	8	8	8

DATA SUMMARIES Continued

NORMAL FORCE (FOR CONTACTS TESTED IN THE HOUSING):

1) Calibrated force gauges are used along with computer controlled positioning equipment.
2) For Normal force 8-10 measurements are taken and the averages reported.

Initial	Deflections in mm Forces in Grams					
	0.0500	0.1000	0.1500	0.2000	0.2100	*SET*
Averages	24.97	48.14	71.78	92.28	96.08	0.0079
Min	24.20	46.50	70.00	90.60	93.60	0.0060
Max	25.90	51.00	74.60	94.80	98.00	0.0110
St. Dev	0.507	1.097	1.281	1.119	1.287	0.0016
Count	12	12	12	12	12	12

After Thermals	Deflections in mm Forces in Grams					
	0.0500	0.1000	0.1500	0.2000	0.2100	*SET*
Averages	25.27	48.39	72.10	94.07	97.28	0.0057
Min	24.20	46.50	70.00	91.90	93.50	0.0050
Max	26.80	50.70	75.50	96.80	100.30	0.0080
St. Dev	0.715	1.197	1.406	1.658	2.067	0.0011
Count	12	12	12	12	12	12

INSULATION RESISTANCE (IR):

	Pin to Pin		
	Mated	Unmated	Unmated
Minimum	SHM-RH/LSHM-DH	LSHM-RH	LSHM-DH
Initial	10000	10000	10000
Thermal	10000	10000	10000
Humidity	8977	10000	10000

DIELECTRIC WITHSTANDING VOLTAGE (DWV):

Voltage Rating Summary	
Minimum	LSHM-RH/LSHM-DH
Break Down Voltage	625
Test Voltage	469
Working Voltage	156

Pin to Pin	
Initial Test Voltage	Passed
After Thermal Test Voltage	Passed
After Humidity Test Voltage	Passed

DATA SUMMARIES Continued

LLCR Durability:

1) A total of 184points 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

LSHM-150-01-F-RH-A-N\ LSHM-150-01-F-DH-A-N

LLCR Measurement Summaries by Pin Type				
Date	2011-12-5	2011-12-8	2011-12-14	2011-12-29
Room Temp (Deg C)	22	20	22	20
Rel Humidity (%)	43	58	42	50
Technician	Kason He	Kason He	Kason He	kason he
mOhm values	**Actual Initial**	**Delta 100 Cycles**	**Delta Therm Shck**	**Delta Humidity**
Pin Type 1: Row 1				
Average	29.88	1.65	2.35	1.97
St. Dev.	0.68	1.76	2.79	1.74
Min	28.37	0.00	0.01	0.02
Max	31.91	8.32	9.63	8.74
Summary Count	168	168	168	168
Total Count	168	168	168	168
Pin Type 2: Row 2				
Average	24.13	1.03	1.92	1.41
St. Dev.	0.56	0.86	1.08	1.01
Min	23.21	0.07	0.18	0.04
Max	25.09	2.81	4.21	3.99
Summary Count	16	16	16	16
Total Count	16	16	16	16

LLCR Delta Count by Category						
	Stable	**Minor**	**Acceptable**	**Marginal**	**Unstable**	**Open**
mOhms	**<=5**	**>5 & <=10**	**>10 & <=15**	**>15 & <=50**	**50 & <=100**	**>1000**
100 Cycles	**175**	**9**	**0**	**0**	**0**	**0**
Therm Shck	**162**	**22**	**0**	**0**	**0**	**0**
Humidity	**173**	**11**	**0**	**0**	**0**	**0**

DATA SUMMARIES Continued

LLCR Durability:

1) A total of 192 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

LSHM-150-01-F-RH-A-N\ LSHM-150-01-F-DV-A-N

LLCR Measurement Summaries by Pin Type				
Date	2011-12-6	2011-12-8	2011-12-14	2011-12-29
Room Temp (Deg C)	22	22	22	20
Rel Humidity (%)	55	58	42	52
Technician	Kason He	Kason He	Kason He	kason he
mOhm values	**Actual Initial**	**Delta 100 Cycles**	**Delta Therm Shck**	**Delta Humidity**
	Pin Type 1: Row 1			
Average	27.16	1.02	1.08	1.36
St. Dev.	0.84	0.59	0.65	0.82
Min	25.40	0.01	0.01	0.00
Max	31.06	3.47	3.61	3.18
Summary Count	88	88	88	88
Total Count	88	88	88	88
	Pin Type 2: Row 2			
Average	20.74	0.63	0.66	1.00
St. Dev.	0.41	0.39	0.39	1.18
Min	19.89	0.02	0.00	0.02
Max	21.54	1.96	2.60	5.72
Summary Count	104	104	104	104
Total Count	104	104	104	104

LLCR Delta Count by Category						
	Stable	**Minor**	**Acceptable**	**Marginal**	**Unstable**	**Open**
mOhms	**<=5**	**>5 & <=10**	**>10 & <=15**	**>15 & <=50**	**>50 & <=1000**	**>1000**
100 Cycles	**192**	**0**	**0**	**0**	**0**	**0**
Therm Shck	**192**	**0**	**0**	**0**	**0**	**0**
Humidity	**190**	**2**	**0**	**0**	**0**	**0**

DATA SUMMARIES Continued

LLCR Thermal:

1) A total of 184 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
   g. >+2000 mOhms: ---------- Open Failure

LLCR Measurement Summaries by Pin Type		
Date	2011-12-5	2011-12-17
Room Temp (Deg C)	22	23
Rel Humidity (%)	43	33
Technician	Kason He	Kason He
mOhm values	**Actual Initial**	**Delta Thermal**
	Pin Type 1: Row 1	
Average	29.65	0.28
St. Dev.	0.63	0.19
Min	28.49	0.00
Max	31.76	0.90
Summary Count	168	168
Total Count	168	168
	Pin Type 2: Row 2	
Average	24.62	0.31
St. Dev.	0.51	0.22
Min	23.37	0.02
Max	25.49	0.76
Summary Count	16	16
Total Count	16	16

LLCR Delta Count by Category						
	Stable	**Minor**	**Acceptable**	**Marginal**	**Unstable**	**Open**
mOhms	**<=5**	**>5 & <=10**	**>10 & <=15**	**>15 & <=50**	**50 & <=100**	**>1000**
Thermal	**184**	**0**	**0**	**0**	**0**	**0**

DATA SUMMARIES Continued

GAS TIGHT:

1) A total of 184 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

LLCR Measurement Summaries by Pin Type		
Date	2011-12-6	2011-12-8
Room Temp (Deg C)	22	22
Rel Humidity (%)	55	58
Technician	Kason He	Kason He
mOhm values	**Actual Initial**	**Delta Acid Vapor**
	Pin Type 1: Row 1	
Average	29.96	0.45
St. Dev.	0.67	0.38
Min	28.20	0.00
Max	32.28	2.25
Summary Count	168	168
Total Count	168	168
	Pin Type 2: Row 2	
Average	24.74	0.57
St. Dev.	0.59	0.30
Min	23.66	0.05
Max	25.50	1.05
Summary Count	16	16
Total Count	16	16

LLCR Delta Count by Category						
	Stable	**Minor**	**Acceptable**	**Marginal**	**Unstable**	**Open**
mOhms	**<=5**	**>5 & <=10**	**>10 & <=15**	**>15 & <=50**	**50 & <=100**	**>1000**
Acid Vapor	**184**	**0**	**0**	**0**	**0**	**0**

DATA SUMMARIES Continued

LLCR Shock & Vibration:

1) A total of 184 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

LLCR Measurement Summaries by Pin Type		
Date	2011-12-22	2012-1-4
Room Temp (Deg C)	22	23
Rel Humidity (%)	32	33
Technician	Aaron McKim	Aaron McKim
mOhm values	**Actual Initial**	**Delta Shock-Vib**
	Pin Type 1: Row 1	
Average	29.99	0.27
St. Dev.	0.72	0.23
Min	28.39	0.00
Max	32.85	1.11
Summary Count	168	168
Total Count	168	168
	Pin Type 2: Row 2	
Average	24.49	0.34
St. Dev.	0.64	0.30
Min	23.17	0.01
Max	25.32	1.09
Summary Count	16	16
Total Count	16	16

LLCR Delta Count by Category						
	Stable	**Minor**	**Acceptable**	**Marginal**	**Unstable**	**Open**
mOhms	**<=5**	**>5 & <=10**	**>10 & <=15**	**>15 & <=50**	**50 & <=100**	**>1000**
Shock-Vib	**184**	**0**	**0**	**0**	**0**	**0**

Nanosecond Event Detection:

Shock and Vibration Event Detection Summary	
Contacts tested	48
Test Condition	C, 100g's, 6ms, Half-Sine
Shock Events	0
Test Condition	V-B, 7.56 rms g
Vibration Events	0
Total Events	0

EQUIPMENT AND CALIBRATION SCHEDULES

Equipment #: HZ-TCT-01
Description: Normal force analyzer
Manufacturer: Mecmesin Multitester
Model: Mecmesin Multitester 2.5-i
Serial #: 08-1049-04
Accuracy: Last Cal: 4/27/2011, Next Cal: 4/26/2012

Equipment #: HZ-OV-01
Description: Oven
Manufacturer: Huida
Model: CS101-1E
Serial #: CS101-1E-B
Accuracy: Last Cal: 12/13/2011, Next Cal: 12/12/2012

Equipment #: HZ-THC-01
Description: Humidity transmitter
Manufacturer: Thermtron
Model: HMM30C
Serial #: D0240037
Accuracy: Last Cal: 3/1/2011, Next Cal: 2/28/2012

Equipment #: HZ-OGP-01
Description: Video measurement system
Manufacturer: OGP
Model: SMARTSCOPE FLASH 200
Serial #: SVW2003632
Accuracy: Last Cal: 6/9/2011, Next Cal: 6/8/2012

Equipment #: HZ-MO-01
Description: Micro-ohmmeter
Manufacturer: Keithley
Model: 2700
Serial #: 1199807
Accuracy: Last Cal: 4/27/2011, Next Cal: 4/26/2012

Equipment #: HZ-PS-01
Description: Power Supply
Manufacturer: Agilent
Model: 6031A
Serial #: MY41000982
Accuracy: Last Cal: 4/27/2011, Next Cal: 4/26/2012

EQUIPMENT AND CALIBRATION SCHEDULES Continued

Equipment #: HZ-HPM-01
Description: NA9636H
Manufacturer: Ainuo
Model: 6031A
Serial #: 089601091
Accuracy: Last Cal: 3/8/2011, Next Cal: 3/7/2012

Equipment #: SVC-01
Description: Shock & Vibration Table
Manufacturer: Data Physics
Model: LE-DSA-10-20K
Serial #: 10037
Accuracy: See Manual
… Last Cal: 11/31/2010, Next Cal: 11/31/2011

Equipment #: ACLM-01
Description: Accelerometer
Manufacturer: PCB Piezotronics
Model: 352C03
Serial #: 115819
Accuracy: See Manual
… Last Cal: 07/09/2011, Next Cal: 07/09/2012

Equipment #: ED-03
Description: Event Detector
Manufacturer: Analysis Tech
Model: 32EHD
Serial #: 1100604
Accuracy: See Manual
… Last Cal: 06/04/2011, Next Cal: 06/04/2012