



Project Number:		Tracking Code: TC073--1549	
Requested by: Brandon Harpenau		Date: 1/18/2007	Product Rev: 0
Part #: SEM-125-02-03.0-H-D-WT/ TEM-125-02-03.0-H-D-WT		Lot #: 1	Tech: Rodney Riley, Troy Cook
Part description: SEM/TEM			Qty to test: 50
Test Start: 01/18/2008	Test Completed: 3/12/2008		

Full DVT Report

PART DESCRIPTION

SEM-125-02-03.0-H-D-WT\ TEM-125-02-03.0-H-D-WT

Tracking Code: TC073--1549	Part #: SEM-125-02-03.0-H-D-WT/ TEM-125-02-03.0-H-D-WT
Part description: SEM\TEM	

CERTIFICATION

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

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SCOPE

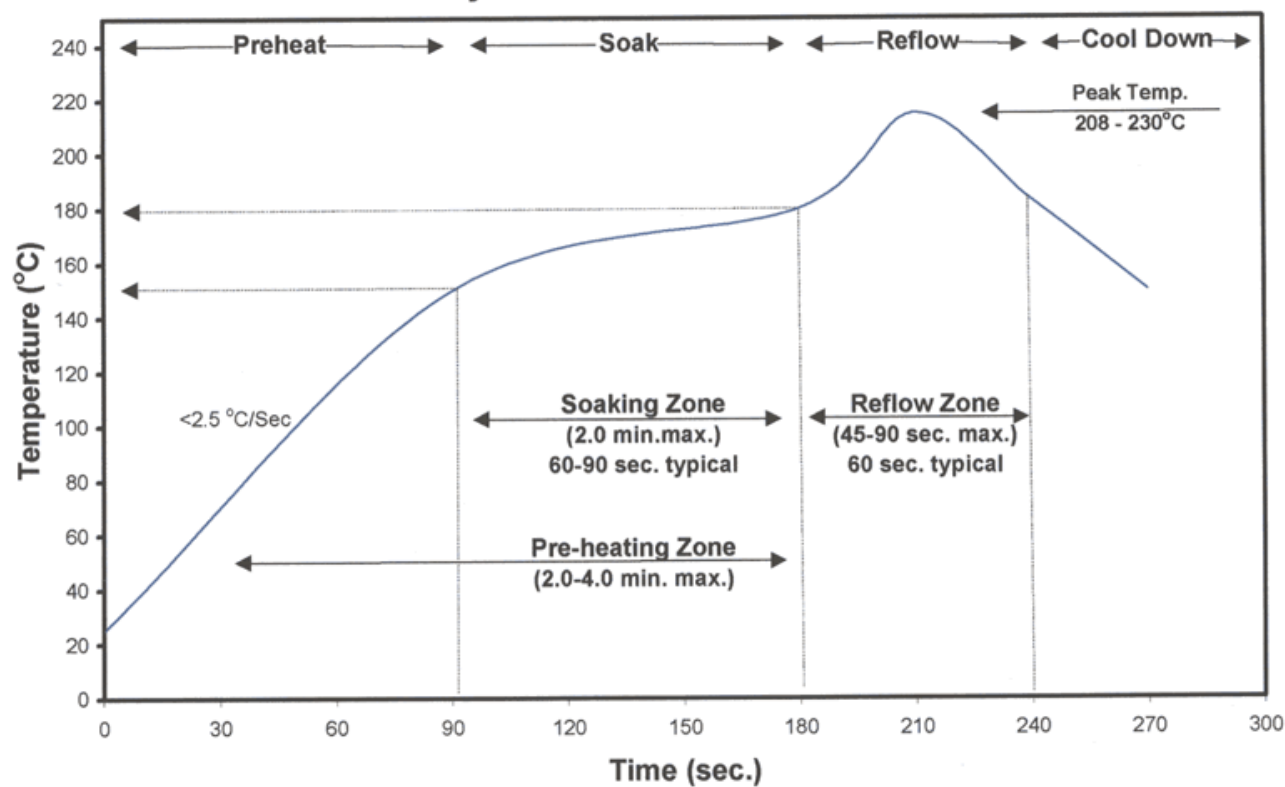
To perform the following tests: Full DVT

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) 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-100970-TST-XX

TYPICAL OVEN PROFILE (Soldering Parts to Test Boards)**Standard Solder Paste Reflow Profile
for Kester Paste Containing
Alloys: Sn63Pb37 or Sn62Pb36Ag02**

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FLOWCHARTS

Mating/Unmating/Normal Force

TEST STEP	GROUP A 10 Boards 100 Cycles	GROUP A 10 Boards 100 Cycles	GROUP A 10 Boards 100 Cycles	GROUP B1 Individual Contacts (30) min	GROUP B2 Individual Contacts (30) min
01	Contact Meas.	Contact Meas.	Contact Meas.	Setup Approve	Setup Approve
02	Mating / Unmating	Mating / Unmating	Mating / Unmating	Normal Force	Thermal Aging (Mated)
03	Data Review	Data Review	Data Review	Data Review	Contact Gaps (Inscribed Circ.)
04	100 Cycles	Cycles	Cycles		
05	Mating / Unmating	Mating / Unmating	Mating / Unmating		
06	Contact Meas.	Contact Meas.	Contact Meas.		
07	Data Review	Data Review	Data Review		
08	Thermal Aging (Mated)	Thermal Aging (Mated)	Thermal Aging (Mated)		
09	Mating / Unmating	Mating / Unmating	Mating / Unmating		
10	Contact Meas.	Contact Meas.	Contact Meas.		
11	Data Review	Data Review	Data Review		
12	Humidity (Mated)	Humidity (Mated)	Humidity (Mated)		
13	Mating / Unmating	Mating / Unmating	Mating / Unmating		
14	Contact Meas.	Contact Meas.	Contact Meas.		

Thermal Aging = EIA-364-17, Test Condition 4, 105 deg C;

Time Condition 'B' (250 hours)

Humidity =EIA-364-31, Test Condition 'B' (240 Hours)

and Method III (+25 ° C to +65 ° C @ 90%RH to 98% RH)

ambient pre-condition and delete steps 7a and 7b

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

Normal Force = EIA-364-04

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

Durability/Thermal Age/Cyclic Humidity

TEST STEP	GROUP A 200 Points 100 Cycles
01	LLCR-1
02	Data Review
03	100 Cycles
04	LLCR-2
05	Data Review
06	Thermal Age
07	LLCR-3
08	Data Review
09	Cyclic Humidity
10	LLCR-4

Thermal Aging = EIA-364-17, Test Condition 4, 105 deg C;

Time Condition 'B' (250 hours)

Humidity =EIA-364-31, Test Condition 'B' (240 Hours)

and Method III (+25° C to +65° C @ 90%RH/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

IR / DWV

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

Thermal Aging = EIA-364-17, Test Condition 4, 105 deg C;

Time Condition 'B' (250 hours)

Humidity =EIA-364-31, Test Condition 'B' (240 Hours)

and Method III (+25 ° C to +65 ° C @ 90%RH to 98% RH)

ambient pre-condition and delete steps 7a and 7b

IR = EIA-364-21

DWV = EIA-364-20

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Gas Tight

TEST STEP	GROUP A 200 Points (min)
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

ATTRIBUTE DEFINITIONS

The following is a brief, simplified description of attributes.

THERMAL:

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

HUMIDITY:

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

CONTACT GAPS:

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

MATING/UNMATING:

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

INSULATION RESISTANCE (IR):

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

- 1) PROCEDURE:
 - a. Reference document: EIA-364-21, *Insulation Resistance Test Procedure for Electrical Connectors*.
 - b. Test Conditions:
 - i. Between Adjacent Contacts
 - 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).

NORMAL FORCE (FOR CONTACTS TESTED OUTSIDE THE HOUSING):

- 1) Reference document: EIA-364-04, *Normal Force Test Procedure for Electrical Connectors*.
- 2) The contacts shall be tested in the loose state, *not* inserted in connector housing.
- 3) The contacts shall be prepared to allow access to the spring member at the same attitude and deflection level as would occur in actual use.
- 4) In the event that portions of the contact prevent insertion of the test probe and/or deflection of the spring member under evaluation, said material shall be removed leaving the appropriate contact surfaces exposed.
- 5) In the case of multi-tine contacts, each tine shall be tested independently on separate samples as required.
- 6) The connector housing shall be simulated, if required, in order to provide an accurate representation of the actual contact system performance.
- 7) A holding fixture shall be fashioned to allow the contact to be properly deflected.
- 8) Said holding fixture shall be mounted on a floating, adjustable, X-Y table on the base of the Dillon TC², computer controlled test stand with a deflection measurement system accuracy of 5 μ m (0.0002").
- 9) The probe shall be attached to a Dillon P/N 49761-0105, 5 N (1.1 Lb) load cell providing an accuracy of $\pm$ 0.2%.
- 10) The nominal deflection rate shall be 5 mm (0.2")/minute.
- 11) Unless otherwise noted a minimum of five contacts shall be tested.
- 12) The force/deflection characteristic to load and unload each contact shall be repeated five times.
- 13) The system shall utilize the TC² software in order to acquire and record the test data.
- 14) The permanent set of each contact shall be measured within the TC² software.
- 15) 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.

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. $\leq +5.0$ 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. $\leq +5.0$ 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°C
 - ix. The final LLCR shall be conducted within 1 hour after drying.

RESULTS

Normal Force at Nominal Deflection (.006" deflection)

- **Initial**
 - **Min**-----35.93 gm
 - **Max**-----48.57 gm
- **Thermal**
 - **Min**-----50.20 gm
 - **Max**-----70.45 gm

Mating – Unmating Forces (25 Position)

- **Initial**
 - **Mating**
 - **Min**-----3.8 lbs
 - **Max**-----5.0 lbs
 - **Unmating**
 - **Min**-----3.4 lbs
 - **Max**-----4.5 lbs
- **After 100 Cycles**
 - **Mating**
 - **Min**-----4.4 lbs
 - **Max**-----6.0 lbs
 - **Unmating**
 - **Min**-----4.4 lbs
 - **Max**-----5.9 lbs
- **Thermal**
 - **Mating**
 - **Min**-----2.2 lbs
 - **Max**-----2.9 lbs
 - **Unmating**
 - **Min**-----2.0 lbs
 - **Max**-----2.8 lbs
- **Humidity**
 - **Mating**
 - **Min**-----2.2 lbs
 - **Max**-----2.9 lbs
 - **Unmating**
 - **Min**-----2.2 lbs
 - **Max**-----2.9 lbs

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Mating – Unmating Forces (50 Position)

- **Initial**
 - **Mating**
 - **Min** ----- 8.7 lbs
 - **Max** ----- 10.7 lbs
 - **Unmating**
 - **Min** ----- 6.9 lbs
 - **Max** ----- 9.4 lbs
- **After 100 Cycles**
 - **Mating**
 - **Min** ----- 9.0 lbs
 - **Max** ----- 13.2 lbs
 - **Unmating**
 - **Min** ----- 7.5 lbs
 - **Max** ----- 12.5 lbs
- **Thermal**
 - **Mating**
 - **Min** ----- 4.6 lbs
 - **Max** ----- 6.2 lbs
 - **Unmating**
 - **Min** ----- 4.2 lbs
 - **Max** ----- 6.5 lbs
- **Humidity**
 - **Mating**
 - **Min** ----- 3.7 lbs
 - **Max** ----- 4.9 lbs
 - **Unmating**
 - **Min** ----- 3.8 lbs
 - **Max** ----- 4.8 lbs

Insulation Resistance minimums, Pin to Pin

- **Initial**
 - **Mated**-----100,000 Meg Ω ----- Pass
 - **Unmated** ----- 50,000 Meg Ω
- **Thermal**
 - **Mated**-----100,000 Meg Ω
 - **Unmated** ----- 75,000 Meg Ω
- **Humidity**
 - **Mated**-----100,000 Meg Ω
 - **Unmated** ----- 100,000 Meg Ω

Dielectric Withstanding Voltage minimums, DWV

- **Initial**
 - Breakdown
 - Mated -----950 VAC
 - DWV
 - Mated -----712.5 VAC
 - Working voltage
 - Mated -----237.5 VAC
- **Thermal**
 - Breakdown
 - Mated -----1180 VAC
 - Unmated -----1100 VAC
 - DWV
 - Mated -----885 VAC
 - Unmated -----825 VAC
 - Working voltage
 - Mated -----295 VAC
 - Unmated -----275 VAC
- **Humidity**
 - Breakdown
 - Mated -----1020 VAC
 - Unmated -----980 VAC
 - DWV
 - Mated -----765 VAC
 - Unmated -----735 VAC
 - Working voltage
 - Mated -----255 VAC
 - Unmated -----245 VAC

LLCR Durability (200 LLCR test points)

- **Initial** ----- 12.0 mOhms Max
- **Durability, 100 Cycles**
 - <= +5.0 mOhms -----200 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 -----200 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 -----200 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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LLCR Gas Tight (185 LLCR test points)

- **Initial ----- 15.5 mOhms Max**
- **Gas-Tight**
 - o **<= +5.0 mOhms ----- 185 Points ----- Stable**
 - o **+5.1 to +10.0 mOhms ----- 0 Points ----- Minor**
 - o **+10.1 to +15.0 mOhms ----- 0 Points ----- Acceptable**
 - o **+15.1 to +50.0 mOhms ----- 0 Points ----- Marginal**
 - o **+50.1 to +2000 mOhms ----- 0 Points ----- Unstable**
 - o **>+2000 mOhms ----- 0 Points ----- Open Failure**

NOTE: Samples 4-8 have only 22 data points due to the orientation on the mating connector being reversed.

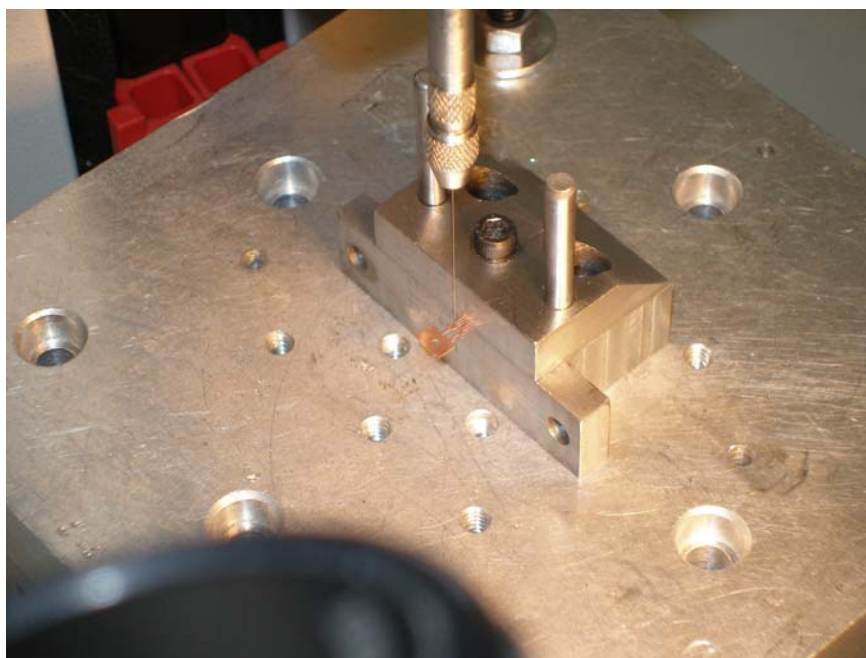
DATA SUMMARIES**MATING/UNMATING:**

25 POSITION								
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	60.5	3.78	54.6	3.41	70.6	4.42	70.3	4.39
Maximum	79.2	5.0	71.9	4.5	96.5	6.0	94.9	5.9
Average	69.5	4.3	62.3	3.9	80.5	5.0	78.9	4.9
After Thermals					After Humidity			
Mating		Unmating		Mating		Unmating		
Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	
Minimum	34.9	2.18	32.0	2.00	35.7	2.23	35.0	2.19
Maximum	46.2	2.9	44.1	2.8	45.6	2.9	46.9	2.9
Average	39.9	2.5	37.1	2.3	39.9	2.5	40.6	2.5

50 POSITION								
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	139.2	8.70	109.7	6.86	143.1	8.95	119.4	7.47
Maximum	171.7	10.7	150.7	9.4	211.1	13.2	199.8	12.5
Average	156.9	9.8	132.3	8.3	187.1	11.7	172.6	10.8
After Thermals					After Humidity			
Mating		Unmating		Mating		Unmating		
Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	
Minimum	74.3	4.64	66.7	4.17	59.0	3.69	60.3	3.77
Maximum	98.7	6.2	103.7	6.5	77.6	4.9	77.3	4.8
Average	89.2	5.6	81.6	5.1	66.0	4.1	66.9	4.2

DATA SUMMARIES Continued**NORMAL FORCE (FOR CONTACTS TESTED OUTSIDE THE HOUSING):**

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



Initial	Deflections in inches Forces in Grams					
	<u>0.001</u>	<u>0.002</u>	<u>0.004</u>	<u>0.006</u>	<u>0.008</u>	<u>SET</u>
Averages	5.91	16.85	27.40	41.16	53.81	0.0014
Min	4.92	14.90	24.32	35.93	45.97	0.0010
Max	7.57	20.99	32.58	48.57	62.85	0.0016
St. Dev	0.92	2.30	3.25	4.64	5.45	0.0002
Count	7	7	7	7	7	7

Thermal	Deflections in inches Forces in Grams					
	<u>0.001</u>	<u>0.002</u>	<u>0.004</u>	<u>0.006</u>	<u>0.008</u>	<u>SET</u>
Averages	7.12	21.91	38.91	60.91	78.12	0.0014
Min	6.30	18.70	32.10	50.20	64.90	0.0012
Max	9.10	29.50	48.01	70.45	89.12	0.0016
St. Dev	0.93	3.88	6.18	7.98	8.42	0.0002
Count	7	7	7	7	7	7

DATA SUMMARIES Continued**INSULATION RESISTANCE (IR):**

Initial	Pin-Pin	
	<i>Mated</i>	<i>Unmated</i>
	SEM/TEM	SEM
minimum	100000	50000
maximum	100000	100000
average	100000	87500

Thermal	Pin-Pin	
	<i>Mated</i>	<i>Unmated</i>
	SEM/TEM	SEM
minimum	100000	75000
maximum	100000	100000
average	100000	93750

Humidity	Pin-Pin	
	<i>Mated</i>	<i>Unmated</i>
	SEM/TEM	SEM
minimum	100000	100000
maximum	100000	100000
average	100000	100000

DIELECTRIC WITHSTANDING VOLTAGE (DWV):

Initial	Pin-Pin
Minimum:	<i>Mated</i>
	SEM/TEM
Breakdown Voltage	950
DWV	712.5
Working Voltage	237.5

Thermal	Pin-Pin	
Minimum:	<i>Mated</i>	<i>Unmated</i>
	SEM/TEM	SEM
Breakdown Voltage	1180	1100
DWV	885	825
Working Voltage	295	275

Humidity	Pin-Pin	
Minimum:	<i>Mated</i>	<i>Unmated</i>
	SEM/TEM	SEM
Breakdown Voltage	1020	980
DWV	765	735
Working Voltage	255	245

DATA SUMMARIES Continued

LLCR:

- 1) A total of 200 points were measured.
- 2) EIA-364-23, *Low Level Contact Resistance Test Procedure for Electrical Connectors and Sockets*.
- 3) A computer program, *LLCR 221.exe*, ensures repeatability for data acquisition.
- 4) The following guidelines are used to categorize the changes in LLCR as a result from stressing.
 - a. $\leq +5.0$ mOhms: ----- Stable
 - b. $+5.1$ to $+10.0$ mOhms:----- Minor
 - c. $+10.1$ to $+15.0$ mOhms: ----- Acceptable
 - d. $+15.1$ to $+50.0$ mOhms: ----- Marginal
 - e. $+50.1$ to $+2000$ mOhms ----- Unstable
 - f. $>+2000$ mOhms:----- Open Failure

mOhm values	Actual Initial	Delta 100 Cycles	Delta Thermal	Delta Humidity
Average	9.5	0.2	-0.5	-0.3
St. Dev.	0.7	0.9	1.0	0.7
Min	8.3	-2.5	-3.4	-3.5
Max	12.0	2.8	1.7	1.6
Count	200	200	200	200

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Part description: SEM/TEM	

DATA SUMMARIES Continued

GAS TIGHT:

- 1) A total of 185 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. $\leq +5.0$ mOhms: ----- Stable
 - b. $+5.1$ to $+10.0$ mOhms:----- Minor
 - c. $+10.1$ to $+15.0$ mOhms: ----- Acceptable
 - d. $+15.1$ to $+50.0$ mOhms: ----- Marginal
 - e. $+50.1$ to $+2000$ mOhms: ----- Unstable
 - f. $>+2000$ mOhms:----- Open Failure

mOhm values	Actual Initial	Delta Gas Tight
Average	10.1	-0.5
St. Dev.	1.2	0.7
Min	8.5	-3.5
Max	15.5	1.6
Count	185	185

DATA**NORMAL FORCE (FOR CONTACTS TESTED OUTSIDE THE HOUSING):**

Initial		Deflections in inches Forces in Grams				
<u>Sample #</u>	<u>0.001</u>	<u>0.002</u>	<u>0.004</u>	<u>0.006</u>	<u>0.008</u>	<u>SET</u>
1	5.33	15.06	24.32	35.93	45.97	0.00130
2	6.12	16.63	26.04	37.97	50.05	0.00150
3	4.92	15.38	26.99	41.53	53.66	0.00100
4	6.59	18.98	31.38	46.29	58.21	0.00150
5	5.49	16.00	25.26	39.07	52.72	0.00140
6	5.33	14.90	25.26	38.75	53.19	0.00160
7	7.57	20.99	32.58	48.57	62.85	0.00130

Thermal		Deflections in inches Forces in Grams				
<u>Sample #</u>	<u>0.001</u>	<u>0.002</u>	<u>0.004</u>	<u>0.006</u>	<u>0.008</u>	<u>SET</u>
1	7.06	23.69	42.36	65.58	82.84	0.00160
2	6.40	18.70	34.00	53.90	72.70	0.00130
3	6.90	22.91	44.40	70.45	89.12	0.00160
4	9.10	29.50	48.01	69.51	84.26	0.00120
5	7.10	20.20	38.40	61.40	80.70	0.00140
6	6.30	18.70	33.10	55.30	72.30	0.00150
7	7.00	19.70	32.10	50.20	64.90	0.00120

MATING/UNMATING:

25 Position	Initial		After 100 Cycles		After Thermals		After Humidity	
<u>Sample#</u>	<u>Mating</u>	<u>Unmating</u>	<u>Mating</u>	<u>Unmating</u>	<u>Mating</u>	<u>Unmating</u>	<u>Mating</u>	<u>Unmating</u>
1	4.93	4.49	6.03	5.93	2.42	2.41	2.71	2.93
2	3.78	3.47	4.73	4.44	2.36	2.21	2.50	2.60
3	4.08	3.62	4.66	4.60	2.49	2.22	2.33	2.37
4	4.34	3.65	4.74	4.77	2.18	2.17	2.37	2.39
5	4.30	4.19	5.47	5.20	2.35	2.00	2.23	2.35
6	4.95	4.14	5.56	5.24	2.52	2.33	2.79	2.80
7	4.22	3.41	4.60	4.39	2.50	2.28	2.30	2.19
8	4.16	3.54	5.17	4.89	2.49	2.13	2.43	2.42
9	4.49	4.40	5.49	4.97	2.89	2.76	2.85	2.83
10	4.17	4.03	4.42	5.44	2.73	2.69	2.43	2.47

Sample#	Initial		After 100 Cycles		After Thermals		After Humidity	
	Mating	Unmating	Mating	Unmating	Mating	Unmating	Mating	Unmating
1	10.34	8.60	13.19	12.10	6.13	5.67	4.85	4.83
2	8.70	7.39	8.95	7.47	5.63	4.89	4.23	4.20
3	9.72	9.20	12.49	11.74	5.21	4.78	3.77	3.79
4	10.14	9.42	12.14	11.07	5.98	5.51		
5	9.90	6.86	10.66	10.25	5.40	4.47	3.69	3.77
6	10.73	9.38	13.19	12.49	6.17	6.48		
7	9.85	8.47	12.22	11.31	5.22	4.75	3.82	3.91
8	9.96	7.66	11.64	10.77	5.56	5.05	4.06	4.39
9	9.09	7.81	10.76	9.86	5.84	5.25	4.70	4.78
10	9.64	7.88	11.70	10.86	4.64	4.17	3.88	3.77

INSULATION RESISTANCE (IR):

Initial	Pin-Pin	
	Mated	Unmated
Tested?:	x	x
Sample#	SEM/TEM	SEM
1	100000	100000
2	100000	50000
3	100000	100000
4	100000	100000

Thermal	Pin-Pin	
	Mated	Unmated
Tested?:	x	x
Sample#	SEM/TEM	SEM
1	100000	100000
2	100000	100000
3	100000	100000
4	100000	75000

Humidity	Pin-Pin	
	Mated	Unmated
Tested?:	x	x
Sample#	SEM/TEM	SEM
1	100000	100000
2	100000	100000
3	100000	100000
4	100000	100000

DATA Continued**DIELECTRIC WITHSTANDING VOLTAGE (DWV):**

Initial	Pin-Pin
	<i>Mated</i>
<i>Tested?:</i>	x
Sample#	SEM/TEM
1	950
2	1100
3	1250
4	1200

Thermal	Pin-Pin	
	<i>Mated</i>	<i>Unmated</i>
<i>Tested?:</i>	x	x
Sample#	SEM/TEM	SEM
1	1180	1150
2	1180	1100

Humidity	Pin-Pin	
	<i>Mated</i>	<i>Unmated</i>
<i>Tested?:</i>	x	x
Sample#	SEM/TEM	SEM
1	1160	1130
2	1020	980

LLCR:

	mOhm values	Actual	Delta	Delta	Delta
Board	Position	Initial	100 Cycles	Thermal	Humidity
1	P1	8.7	0.8	0.9	1.2
1	P2	8.9	0.3	1.2	-0.4
1	P3	8.5	1.1	1.7	0.1
1	P4	8.9	0.8	1.3	0.0
1	P5	9.1	0.5	0.7	-0.5
1	P6	9.2	0.3	0.6	-0.6
1	P7	8.4	0.6	0.9	-0.1
1	P8	9.0	0.7	0.4	-0.4
1	P9	8.6	0.4	0.9	-0.3
1	P10	8.7	0.3	0.8	-0.4
1	P11	8.9	0.2	0.5	-0.6
1	P12	8.9	0.5	0.0	-0.6
1	P13	9.2	0.3	-0.6	-0.7
1	P14	9.3	0.3	-0.8	-0.1
1	P15	9.2	0.6	-0.5	0.0
1	P16	9.0	0.7	-0.6	0.4
1	P17	9.2	1.5	-0.3	0.4
1	P18	9.5	1.2	-1.1	0.0
1	P19	9.5	0.3	-0.7	0.0
1	P20	9.8	0.5	-0.8	0.2
1	P21	9.4	0.5	-0.8	0.3

1	P22	9.8	0.6	-0.4	0.0
1	P23	9.7	0.8	-0.5	0.1
1	P24	9.7	0.8	-0.8	0.0
1	P25	9.1	0.6	0.2	0.3
2	P1	8.5	0.3	0.7	-0.3
2	P2	8.9	0.5	0.1	-0.6
2	P3	9.4	0.0	0.2	-1.0
2	P4	9.0	0.3	0.7	-0.4
2	P5	8.7	0.7	0.5	-0.3
2	P6	8.9	0.4	0.3	-0.4
2	P7	8.5	0.3	0.3	-0.3
2	P8	8.7	0.3	0.1	-0.7
2	P9	8.9	0.4	0.5	-0.9
2	P10	9.0	0.3	0.2	-0.7
2	P11	9.8	-0.9	-0.9	-1.7
2	P12	9.4	-0.5	-0.2	-1.1
2	P13	10.6	-1.4	-2.1	-2.3
2	P14	10.5	-0.5	-2.3	-1.8
2	P15	10.4	-0.5	-2.1	-2.0
2	P16	9.3	0.9	-0.7	-1.0
2	P17	9.6	0.1	-0.9	-1.1
2	P18	12.0	-2.5	-3.4	-3.5
2	P19	8.6	0.2	-0.4	1.6
2	P20	9.9	0.7	-1.2	-0.9
2	P21	9.7	0.1	-1.2	-1.1
2	P22	9.7	0.0	-0.7	-0.9
2	P23	9.7	0.1	-0.9	-1.0
2	P24	9.3	0.1	-0.5	-0.6
2	P25	9.6	0.2	-1.0	-1.0
3	P1	8.3	0.8	0.6	0.1
3	P2	8.9	0.9	0.2	0.0
3	P3	9.2	0.5	-0.2	-0.4
3	P4	9.8	-0.6	-0.9	-1.1
3	P5	8.7	0.4	0.4	0.0
3	P6	9.0	0.5	0.1	-0.3
3	P7	8.7	1.1	0.4	0.4
3	P8	8.9	0.3	0.1	-0.1
3	P9	8.9	0.3	-0.2	-0.2
3	P10	9.0	0.2	0.1	-0.5
3	P11	8.9	0.5	-0.1	-0.3
3	P12	8.8	0.3	0.1	-0.1
3	P13	9.4	0.0	-1.0	-0.5
3	P14	9.8	0.2	-1.3	-0.5
3	P15	9.3	0.1	-0.9	-0.5
3	P16	9.6	0.1	-0.9	-0.4
3	P17	9.3	-0.3	-0.9	-0.6
3	P18	9.8	-0.2	-1.3	-1.1
3	P19	9.8	-0.2	-0.5	-0.8
3	P20	10.5	-0.7	-1.7	-1.3

Tracking Code: TC073--1549

Part #: SEM-125-02-03.0-H-D-WT/
TEM-125-02-03.0-H-D-WT

Part description: SEM/TEM

3	P21	9.7	-0.2	-1.3	-0.5
3	P22	10.1	-0.8	-1.4	-1.1
3	P23	9.3	-0.3	-0.6	-0.7
3	P24	9.5	-0.6	-0.5	-0.6
3	P25	9.3	-0.3	-0.8	-0.5
4	P1	9.5	0.4	0.6	0.4
4	P2	9.6	0.0	-0.8	0.9
4	P3	9.8	0.0	-0.7	0.0
4	P4	10.2	-0.9	-0.9	-0.5
4	P5	10.1	0.8	-1.3	0.6
4	P6	10.4	-0.3	-1.4	-0.2
4	P7	8.9	0.5	-0.2	0.6
4	P8	9.0	0.7	-0.1	0.7
4	P9	8.8	0.1	0.0	0.6
4	P10	9.7	-0.8	-1.0	-0.2
4	P11	9.5	-0.3	-0.9	0.1
4	P12	9.5	0.7	-1.0	0.5
4	P13	10.3	-0.6	-1.6	-1.0
4	P14	11.4	-1.0	-2.9	-1.7
4	P15	11.0	-0.1	-2.4	-1.3
4	P16	10.3	0.0	-1.7	-0.9
4	P17	10.1	0.3	-1.7	-0.5
4	P18	10.1	-0.1	-1.3	0.1
4	P19	9.5	0.1	-0.8	0.5
4	P20	11.5	-1.4	-2.8	-1.3
4	P21	11.5	-1.5	-2.5	-1.5
4	P22	10.9	-0.6	-2.1	-1.3
4	P23	9.6	-0.3	-0.7	0.0
4	P24	10.2	-1.1	-1.2	-0.9
4	P25	9.8	0.4	-0.9	0.5
5	P1	8.4	1.2	1.2	0.7
5	P2	8.5	0.8	0.8	0.9
5	P3	8.6	0.7	0.6	1.0
5	P4	8.6	0.9	1.1	0.5
5	P5	8.7	1.3	0.3	0.4
5	P6	8.6	1.2	0.8	0.9
5	P7	8.4	1.6	0.7	0.5
5	P8	8.3	1.2	0.5	0.6
5	P9	8.6	0.9	0.6	0.4
5	P10	8.7	1.5	0.4	0.5
5	P11	8.6	1.8	0.2	0.5
5	P12	8.7	-1.0	0.0	0.1
5	P13	8.9	1.1	-0.5	0.1
5	P14	10.3	0.4	-1.6	-0.9
5	P15	9.6	0.5	-0.2	-0.1
5	P16	9.1	0.3	0.5	0.0
5	P17	8.6	2.4	0.3	0.9
5	P18	8.9	0.6	0.4	0.6
5	P19	8.6	0.6	0.1	0.5

Tracking Code: TC073--1549

Part #: SEM-125-02-03.0-H-D-WT/
TEM-125-02-03.0-H-D-WT

Part description: SEM/TEM

5	P20	9.6	1.8	-0.3	-0.1
5	P21	8.9	0.6	0.5	0.5
5	P22	9.3	1.4	0.0	0.6
5	P23	8.7	0.3	0.8	0.5
5	P24	9.1	1.8	0.1	0.5
5	P25	8.8	0.9	0.5	0.7
6	P1	9.3	-0.8	-0.7	0.4
6	P2	9.6	-0.3	-0.4	-0.6
6	P3	9.9	-0.9	-1.0	-0.3
6	P4	9.6	-0.8	-1.0	-0.8
6	P5	9.6	-0.4	-0.7	-0.5
6	P6	9.7	-0.9	-1.1	-0.2
6	P7	9.0	0.1	0.5	0.2
6	P8	9.4	-0.3	-0.3	-0.4
6	P9	9.3	-0.1	-0.2	0.0
6	P10	9.6	-0.4	-0.8	0.1
6	P11	9.4	0.2	-0.9	0.2
6	P12	9.1	-0.3	-0.3	1.1
6	P13	9.6	-0.7	-1.1	0.1
6	P14	11.0	-0.9	-2.4	-0.4
6	P15	11.2	-2.1	-2.6	-1.6
6	P16	11.0	-1.8	-2.5	-1.1
6	P17	9.9	-0.6	-1.0	-0.3
6	P18	10.7	-1.4	-1.8	-1.0
6	P19	9.5	-0.1	-0.5	1.0
6	P20	11.4	-2.2	-3.0	-1.2
6	P21	10.8	-1.7	-2.2	-1.2
6	P22	11.1	-1.9	-2.5	-1.3
6	P23	9.8	-0.7	-0.9	0.1
6	P24	9.7	-0.5	-0.6	0.3
6	P25	9.9	-1.0	-1.3	-0.1
7	P1	8.3	1.6	1.0	0.2
7	P2	8.9	1.6	0.5	0.1
7	P3	9.2	0.6	0.2	-0.5
7	P4	9.8	1.2	0.0	-0.8
7	P5	8.7	2.8	1.2	0.1
7	P6	9.0	2.1	1.2	0.2
7	P7	8.7	1.2	0.8	-0.5
7	P8	8.9	1.3	0.9	0.0
7	P9	8.9	0.8	1.0	-0.5
7	P10	9.0	0.9	0.6	-0.6
7	P11	8.9	1.0	0.8	0.0
7	P12	8.8	0.8	1.2	0.1
7	P13	9.4	1.5	-0.2	0.1
7	P14	9.8	0.1	-0.6	0.1
7	P15	9.3	0.8	0.0	0.2
7	P16	9.6	0.5	-0.5	-0.2
7	P17	9.3	1.3	0.0	0.4
7	P18	9.8	1.2	0.5	-0.2

Tracking Code: TC073--1549

Part #: SEM-125-02-03.0-H-D-WT/
TEM-125-02-03.0-H-D-WT

Part description: SEM/TEM

7	P19	9.8	0.6	-0.9	0.0
7	P20	10.5	0.0	-1.0	-0.3
7	P21	9.7	0.5	-0.1	0.1
7	P22	10.1	0.2	-0.6	0.1
7	P23	9.3	0.3	0.0	0.3
7	P24	9.5	0.2	0.5	0.0
7	P25	9.3	0.7	-0.3	0.2
8	P1	8.9	0.1	0.3	0.1
8	P2	10.0	-0.8	-0.8	-1.0
8	P3	10.1	-1.0	-0.4	-1.2
8	P4	9.6	-0.7	0.0	-0.5
8	P5	9.7	1.8	-0.5	-0.2
8	P6	10.0	-0.5	-0.5	0.0
8	P7	9.2	-0.5	-0.2	-0.8
8	P8	9.4	-0.3	0.1	-0.5
8	P9	9.8	-0.8	-0.3	-0.6
8	P10	9.4	-0.1	-0.3	-0.4
8	P11	10.1	-0.2	-1.0	-0.5
8	P12	9.5	-0.5	0.0	-0.3
8	P13	10.1	0.0	-0.6	-0.4
8	P14	11.1	-0.6	-2.3	-1.2
8	P15	11.5	-1.4	-2.7	-2.1
8	P16	10.3	-0.4	-1.5	-1.0
8	P17	10.1	-0.2	-1.4	-0.2
8	P18	10.0	0.0	-0.9	-0.7
8	P19	10.1	0.2	-1.4	-1.0
8	P20	10.4	-0.2	-1.4	-0.1
8	P21	10.2	0.2	-0.8	-0.4
8	P22	10.5	-0.5	-1.8	-1.1
8	P23	10.5	-0.5	-1.6	-0.6
8	P24	9.5	-0.4	-0.4	0.0
8	P25	9.9	-0.2	-1.3	-0.7

DATA Continued**GAS TIGHT:**

	mOhm values	Actual	Delta
Board	Position	Initial	Gas Tight
1	P1	9.2	0.4
1	P2	9.6	-0.3
1	P3	9.6	0.2
1	P4	9.4	-0.4
1	P5	9.2	-0.2
1	P6	11.1	-1.4
1	P7	9.8	0.0
1	P8	10.1	-0.4
1	P9	9.3	0.0
1	P10	9.0	0.1
1	P11	11.2	-1.4
1	P12	11.4	-1.4
1	P13	10.1	-1.1
1	P14	10.4	-1.1
1	P15	10.6	-1.6
1	P16	10.2	-1.2
1	P17	8.8	-0.1
1	P18	9.6	-0.7
1	P19	9.2	-0.3
1	P20	10.6	-1.2
1	P21	9.5	-0.4
1	P22	9.1	-0.3
1	P23	9.3	-0.4
1	P24	10.2	-0.9
1	P25	8.8	-0.3
2	P1	9.4	-0.4
2	P2	9.6	-0.3
2	P3	11.0	-1.5
2	P4	9.6	-0.4
2	P5	12.8	-3.5
2	P6	9.7	-0.3
2	P7	9.3	-0.1
2	P8	9.8	0.7
2	P9	9.9	-0.7
2	P10	9.6	-0.4
2	P11	10.0	-0.8
2	P12	10.5	-0.9
2	P13	11.5	-2.5
2	P14	9.8	-1.0
2	P15	10.4	-1.3
2	P16	9.0	-0.3

Tracking Code: TC073--1549

Part #: SEM-125-02-03.0-H-D-WT/
TEM-125-02-03.0-H-D-WT

Part description: SEM/TEM

2	P17	9.5	-0.7
2	P18	9.9	-0.9
2	P19	9.7	-0.6
2	P20	10.7	-1.2
2	P21	11.4	-2.0
2	P22	11.9	-2.6
2	P23	10.0	-0.9
2	P24	9.0	0.6
2	P25	9.8	-0.6
3	P1	9.7	-0.1
3	P2	11.3	-1.2
3	P3	10.4	-0.5
3	P4	10.9	-0.7
3	P5	10.8	-1.1
3	P6	11.9	-0.7
3	P7	10.0	0.3
3	P8	10.8	-0.7
3	P9	11.0	-1.3
3	P10	10.4	-0.5
3	P11	10.9	-1.1
3	P12	10.7	-1.0
3	P13	9.0	-0.4
3	P14	10.0	-1.0
3	P15	10.7	-1.2
3	P16	9.8	-1.1
3	P17	9.7	-0.5
3	P18	9.7	-0.7
3	P19	9.2	-0.3
3	P20	10.4	-0.6
3	P21	9.6	-0.1
3	P22	9.7	-0.3
3	P23	9.4	0.0
3	P24	9.4	-0.3
3	P25	8.8	0.1
4	P1	9.1	0.2
4	P2	9.1	0.6
4	P3	8.8	0.2
4	P4	9.1	0.1
4	P5	9.0	0.1
4	P6	10.2	-0.6
4	P7	9.3	0.6
4	P8	8.7	1.0
4	P9	9.1	-0.1
4	P10	9.3	0.5
4	P14	8.7	0.9
4	P15	8.7	-0.1
4	P16	8.6	-0.1
4	P17	8.8	-0.1
4	P18	8.7	0.0

Tracking Code: TC073--1549

Part #: SEM-125-02-03.0-H-D-WT/
TEM-125-02-03.0-H-D-WT

Part description: SEM/TEM

4	P19	8.6	-0.4
4	P20	8.7	0.0
4	P21	8.7	-0.1
4	P22	8.7	0.0
4	P23	8.5	0.2
4	P24	8.5	0.1
4	P25	10.1	-1.7
5	P1	9.2	-0.5
5	P2	9.6	0.2
5	P3	9.7	-0.9
5	P4	10.6	-1.1
5	P5	9.7	-0.7
5	P6	10.7	-0.7
5	P7	9.4	-0.2
5	P8	9.4	-0.4
5	P9	9.4	0.1
5	P10	9.9	-1.0
5	P14	9.1	0.4
5	P15	9.8	-0.9
5	P16	9.2	-0.5
5	P17	9.2	-0.4
5	P18	9.3	-0.1
5	P19	9.5	0.2
5	P20	9.4	-0.2
5	P21	9.3	-0.2
5	P22	9.4	-0.1
5	P23	9.7	-0.5
5	P24	9.8	-0.6
5	P25	8.7	0.5
6	P1	9.3	-0.4
6	P2	12.7	-2.1
6	P3	9.9	0.0
6	P4	10.6	-0.9
6	P5	11.6	1.2
6	P6	10.1	-0.3
6	P7	9.2	-0.2
6	P8	10.7	-0.7
6	P9	8.9	-0.4
6	P10	10.4	-0.9
6	P14	11.5	0.7
6	P15	12.4	1.0
6	P16	11.1	-0.6
6	P17	10.7	-0.3
6	P18	10.7	-0.2
6	P19	9.7	-0.3
6	P20	15.5	-0.5
6	P21	14.8	-0.1
6	P22	14.4	-0.5
6	P23	14.7	-0.9

Tracking Code: TC073--1549

Part #: SEM-125-02-03.0-H-D-WT/
TEM-125-02-03.0-H-D-WT

Part description: SEM/TEM

6	P24	14.7	-0.6
6	P25	10.9	-1.4
7	P1	9.5	-0.7
7	P2	11.2	-0.5
7	P3	10.4	-0.6
7	P4	10.7	-1.1
7	P5	10.4	-1.1
7	P6	10.9	-0.6
7	P7	9.3	-0.2
7	P8	10.8	-0.8
7	P9	10.9	-1.4
7	P10	10.0	-0.6
7	P14	10.5	-0.5
7	P15	9.8	1.6
7	P16	12.0	-2.9
7	P17	9.9	-0.5
7	P18	10.8	-1.7
7	P19	11.0	-0.8
7	P20	10.0	-0.5
7	P21	10.8	-1.4
7	P22	10.6	-1.0
7	P23	10.1	-0.4
7	P24	10.7	-1.6
7	P25	9.9	-1.1
8	P1	10.0	-0.5
8	P2	10.2	0.2
8	P3	10.0	-0.4
8	P4	10.5	-0.5
8	P5	10.8	-1.2
8	P6	10.8	-1.0
8	P7	11.7	-1.5
8	P8	11.1	-0.8
8	P9	10.6	-0.7
8	P10	9.6	0.3
8	P14	10.5	-0.8
8	P15	9.2	0.1
8	P16	10.3	-0.9
8	P17	9.7	-1.0
8	P18	11.5	-1.8
8	P19	12.0	-3.0
8	P20	9.4	-0.5
8	P21	9.0	-0.4
8	P22	8.9	0.3
8	P23	8.8	0.2
8	P24	9.5	-0.2
8	P25	8.7	0.2

Tracking Code: TC073--1549	Part #: SEM-125-02-03.0-H-D-WT/ TEM-125-02-03.0-H-D-WT
Part description: SEM/TEM	

EQUIPMENT AND CALIBRATION SCHEDULES

Equipment #: MO-03

Description: Multimeter /Data Acquisition System

Manufacturer: Keithley

Model: 2700

Serial #: 0791975

Accuracy: See Manual

... Last Cal: 06/22/07, Next Cal: 06/22/08

Equipment #: MO-01

Description: Micro-Ohmmeter

Manufacturer: Keithley

Model: 580

Serial #: 0772740

Accuracy: See Manual

... Last Cal: 06/22/07, Next Cal: 06/22/08

Equipment #: OV-03

Description: Cascade Tek Forced Air Oven

Manufacturer: Cascade Tek

Model: TFO-5

Serial #: 0500100

Accuracy: Temp. Stability: +/- .1C/C change in ambient

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

Equipment #: MO-06

Description: Micro-Ohmmeter

Manufacturer: Keithley

Model: 580

Serial #: 1110525

Accuracy: See Manual

... Last Cal: 06/22/2007, Next Cal: 06/22/2008

Equipment #: MO-07

Description: Multimeter / Data Acquisition System

Manufacturer: Keithley

Model: 2700

Serial #: 1116559

Accuracy: See Manual

... Last Cal: 6/22/2007, Next Cal: 6/22/2008

Tracking Code: TC073--1549	Part #: SEM-125-02-03.0-H-D-WT/ TEM-125-02-03.0-H-D-WT
Part description: SEM/TEM	

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: 5/18/07, Next Cal: 5/18/08

Equipment #: TCT-04

Description: Dillon Quantrol TC21 25-1000 mm/min series test stand

Manufacturer: Dillon Quantrol

Model: TC2 I series test stand

Serial #: 04-1041-04

Accuracy: Speed Accuracy: +/- 5% of indicated speed; Speed Accuracy: +/- 5% of indicated speed;

... Last Cal: 05/18/2007, Next Cal: 05/18/2008

Equipment #: LC-250N (icell)-1

Description: 250 Newton load cell for Dillon Quantrol test stand

Manufacturer: Dillon Quantrol

Model: icell

Serial #: 04-0020-08

Accuracy: .10 % of Capacity

... Last Cal: 01/18/2008, Next Cal: 01/18/2009

Equipment #: OGP-02

Description: Automatic Video Measuring System, 18" (X) x 18" (Y) x 12" (Z)

Manufacturer: Optical Gaging Products (OGP)

Model: Smartscope Flash

Serial #: SVL 5001462

Accuracy: See Manual

... Last Cal: 03/13/2007, Next Cal: 03/13/2008

Equipment #: LC-100N (icell)-1

Description: 100N load cell for Dillon Test stand

Manufacturer: Mecmesin (Dillon/Quantrol)

Model: icell

Serial #: 06-0358-08

Accuracy: .10 % of capacity

... Last Cal: 01/18/2008, Next Cal: 01/18/2009

Tracking Code: TC073--1549	Part #: SEM-125-02-03.0-H-D-WT/ TEM-125-02-03.0-H-D-WT
Part description: SEM/TEM	

Equipment #: OGP-01

Description: 6"X 6" Video Measuring Machine

Manufacturer: Optical Gauging Products

Model: Smartscope 200 CFOV

Serial #: 0791975

Accuracy: See Manual

... Last Cal: 03/13/07, Next Cal: 03/13/08

Equipment #: LC-5N (icell)-2

Description: 5 Newton load cell for Dillon Quantrol test stand

Manufacturer: Dillon Quantrol

Model: icell

Serial #: 02-0140-05

Accuracy: .10 % of capacity

... Last Cal: 5/24/2007, Next Cal: 5/24/2008

Equipment #: HPM-01

Description: Hipot Megommeter

Manufacturer: Hipotronics

Model: H306B-A

Serial #: M9905004

Accuracy: 2 % Full Scale Accuracy

... Last Cal: 06/22/07, Next Cal: 06/22/08

Equipment #: STG-01

Description: Hipot Megomter Safety Test Cage

Manufacturer: Hipotronics

Model: TC-25

Serial #: M9910141

Accuracy: N/A

... Last Cal: No Calibration Required, Next Cal:

Equipment #: Null

Description:

Manufacturer:

Model:

Serial #:

Accuracy:

... Last Cal: , Next Cal: