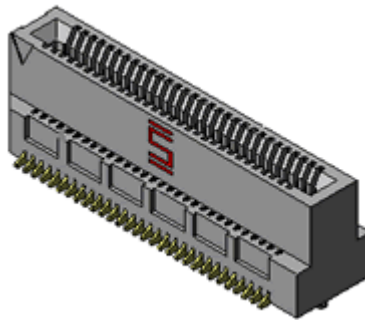




Project Number:		Tracking Code: TC0909-MEC8-2276_ReportRev3				
Requested by: Neal Patterson		Date: 8/7/2012		Product Rev: T		
Part #: MEC8-XXX-02-S-DV-A			Lot #: na		Tech: Gary Lomax & Rodney Riley	Eng: Troy Cook
Part description: MEC8						Qty to test: 30
Test Start: 02/27/2009		Test Completed: 3/2/2009				



**MATING/UNMATING FORCE COMPARISON REPORT**

**PART DESCRIPTION**

**MEC8-XXX-02-S-DV-A**

## 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.

All contents contained herein are the property of Samtec. No portion of this report, in part or in full shall be reproduced without prior written approval of Samtec.

## SCOPE

To perform the following tests: Using MEC8 connectors provided, 10, 50 and 70 positions, perform mate/un-mate testing on 10pcs per position and record forces at initial, 25, 50, 75 and 100 cycles. Use PCB-101613 and PCB-101619; process lead-free. Include data plots at intervals above.

## APPLICABLE DOCUMENTS

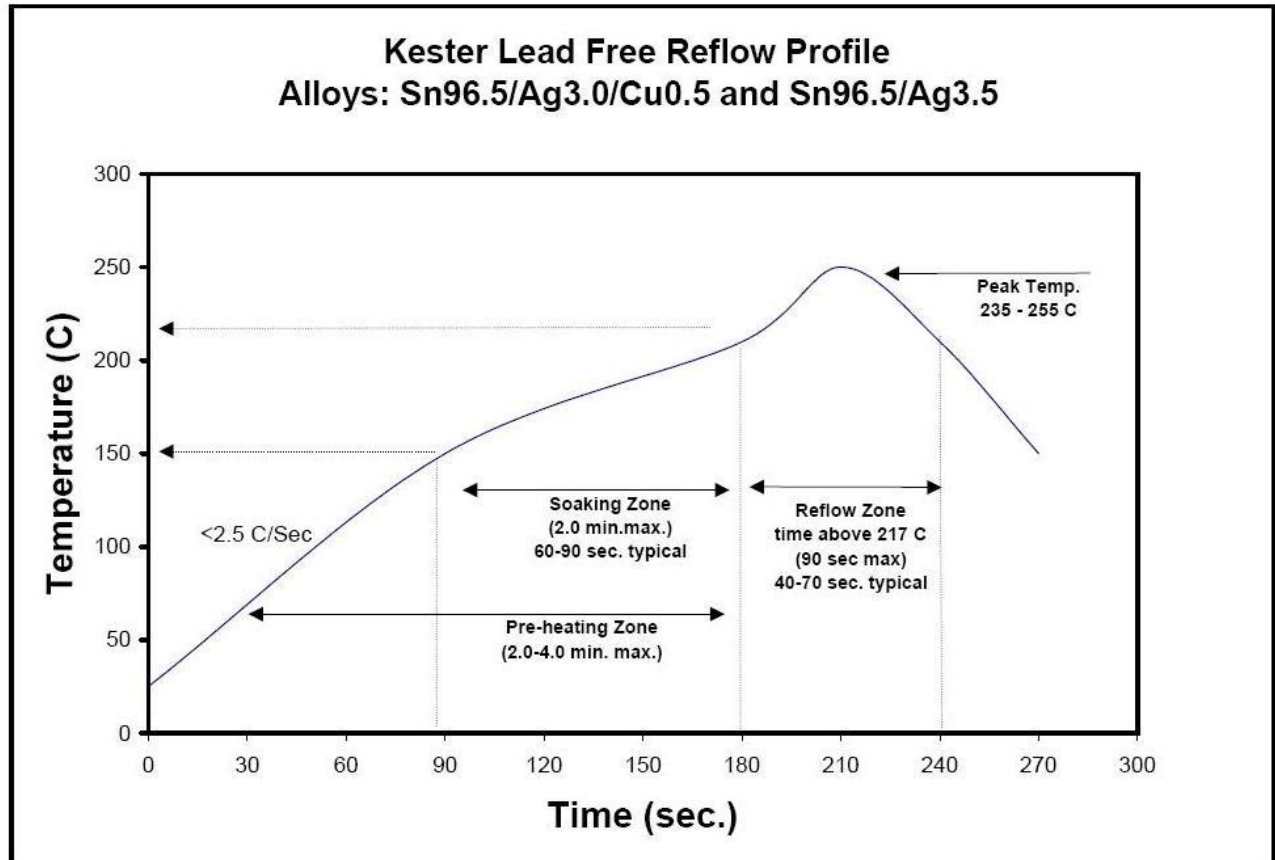
Standards: EIA Publication 364

## 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-101613-TST-XX
- 11) Samtec Mating Card used: PCB-101619-TST-XX

1. .0620
2. .0600
3. .0630
4. .0625
5. .0630
6. .0634
7. .0615
8. .0615
9. .0615
10. .0595



**TYPICAL OVEN PROFILE (Soldering Parts to Test Boards)**

**FLOWCHARTS****Mating/Unmating**

<b>TEST STEP</b>	<b>GROUP A 10 Boards MEC8-10 Position</b>	<b>GROUP B 10 Boards MEC8-50 Position</b>	<b>GROUP C 10 Boards MEC8-70 Position</b>	<b>Total Cycles</b>
<b>01</b>	Mating / Unmating	Mating / Unmating	Mating / Unmating	
<b>02</b>	25 Cycles	25 Cycles	25 Cycles	<b>25</b>
<b>03</b>	Mating / Unmating	Mating / Unmating	Mating / Unmating	
<b>04</b>	25 Cycles	25 Cycles	25 Cycles	<b>50</b>
<b>05</b>	Mating / Unmating	Mating / Unmating	Mating / Unmating	
<b>06</b>	25 Cycles	25 Cycles	25 Cycles	<b>75</b>
<b>07</b>	Mating / Unmating	Mating / Unmating	Mating / Unmating	
<b>08</b>	25 Cycles	25 Cycles	25 Cycles	<b>100</b>
<b>09</b>	Mating / Unmating	Mating / Unmating	Mating / Unmating	

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

### **ATTRIBUTE DEFINITIONS**

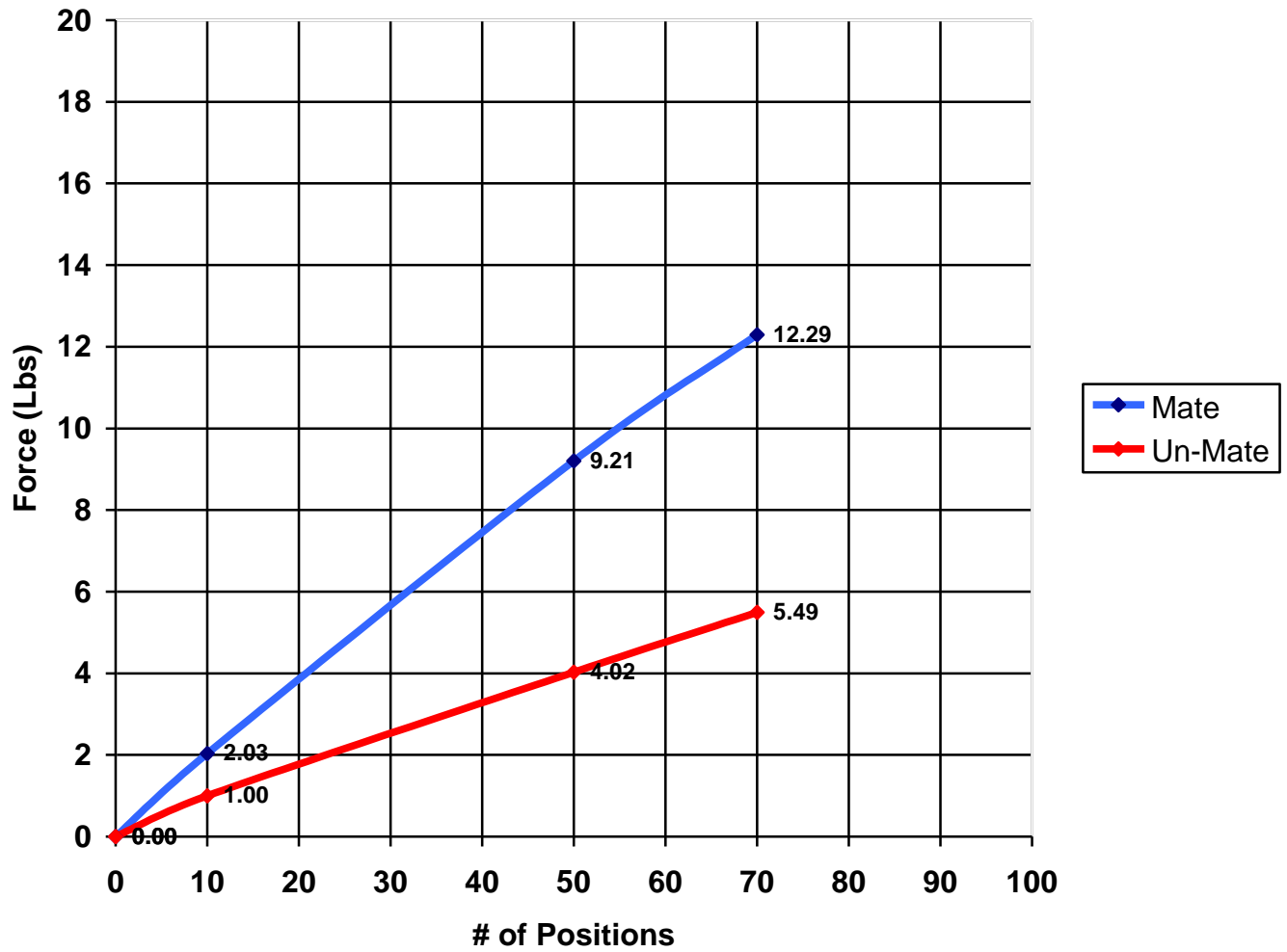
The following is a brief, simplified description of attributes.

#### **MATING/UNMATING:**

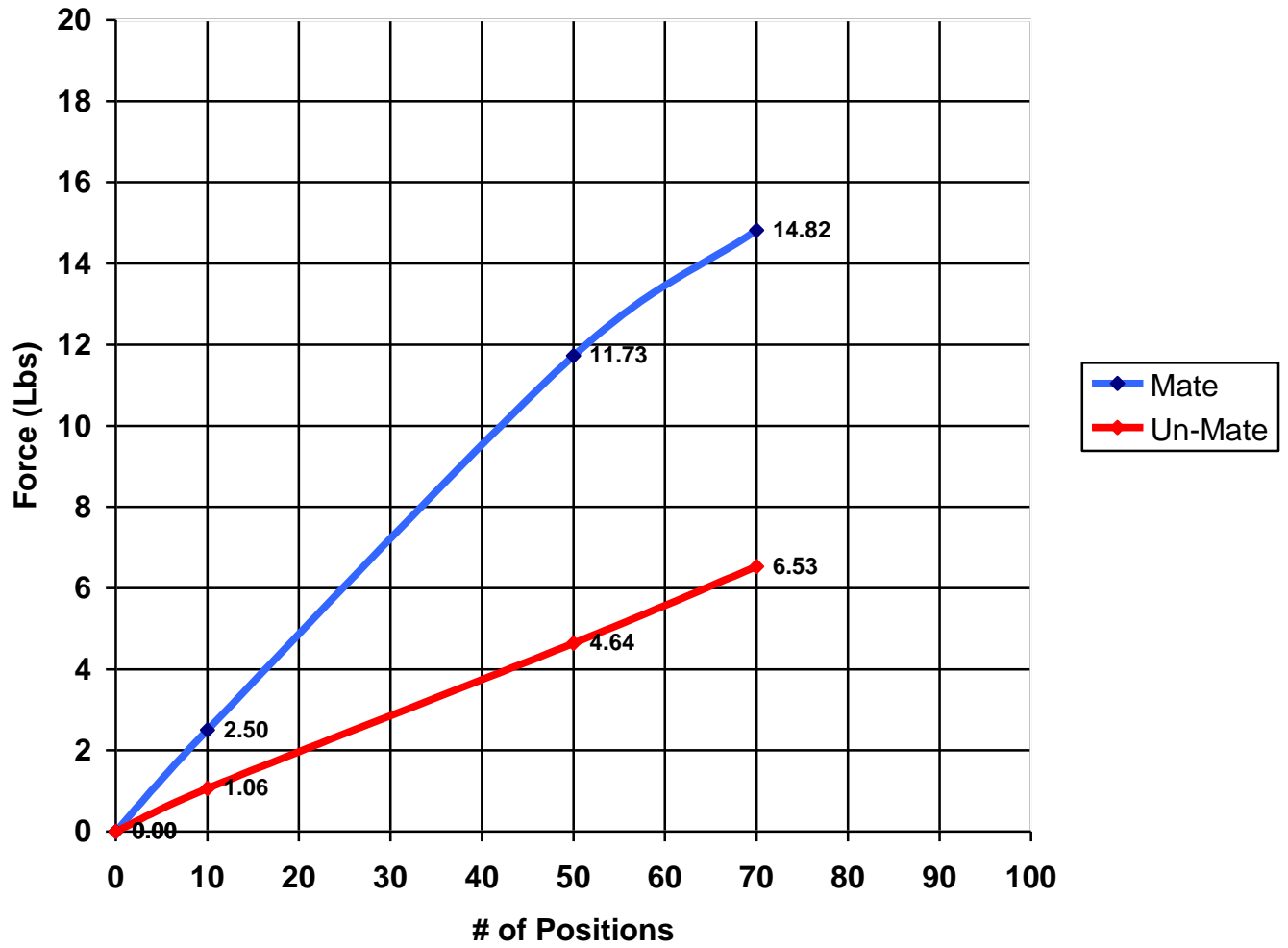
- 1) Reference document: EIA-364-13, *Mating and Unmating Forces Test Procedure for Electrical Connectors*.
- 2) The full insertion position was to within 0.003" to 0.004" of the plug bottoming out in the receptacle to prevent damage to the system under test.
- 3) One of the mating parts is secured to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

### RESULTS

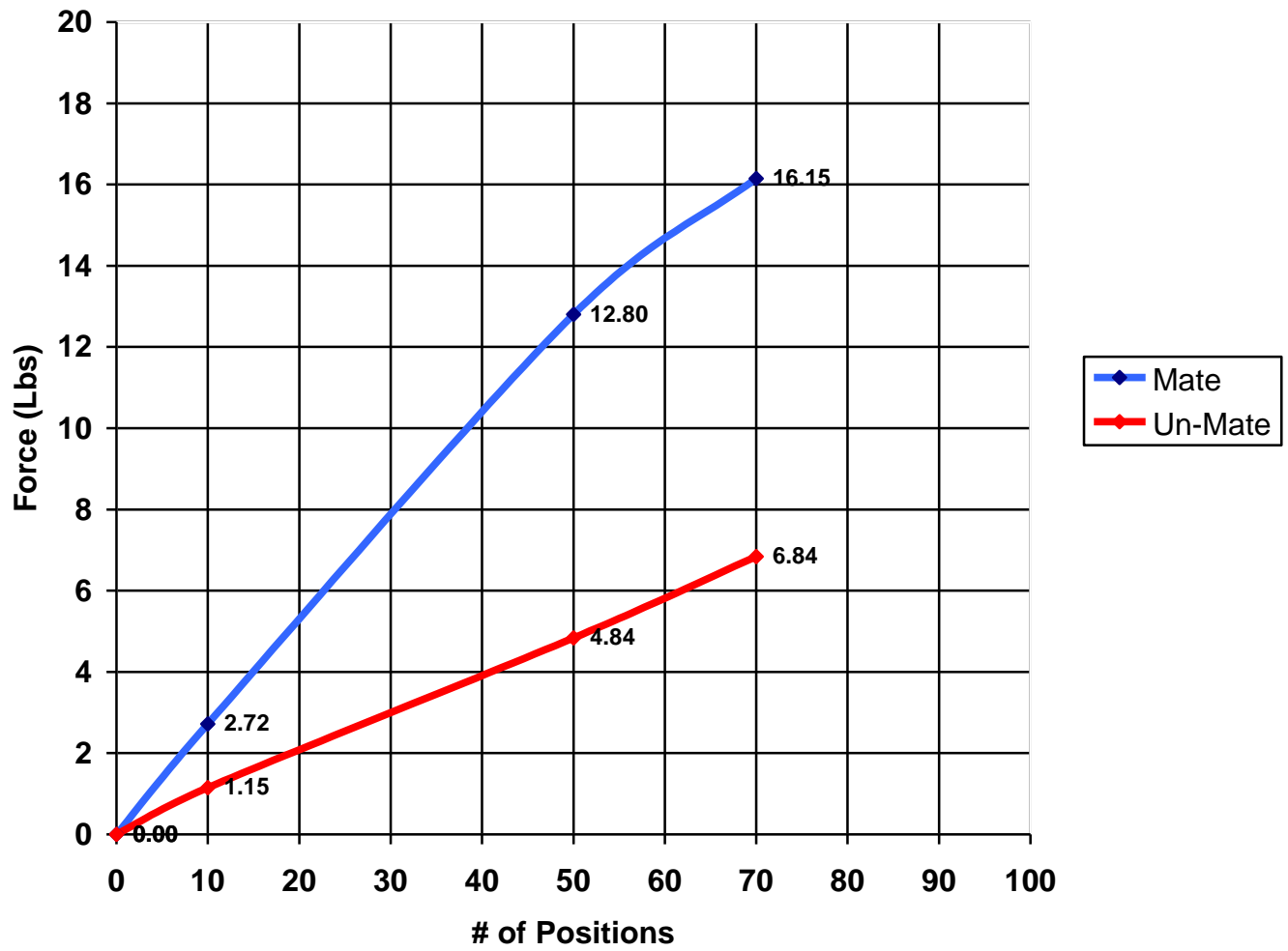
### MEC8 Initial



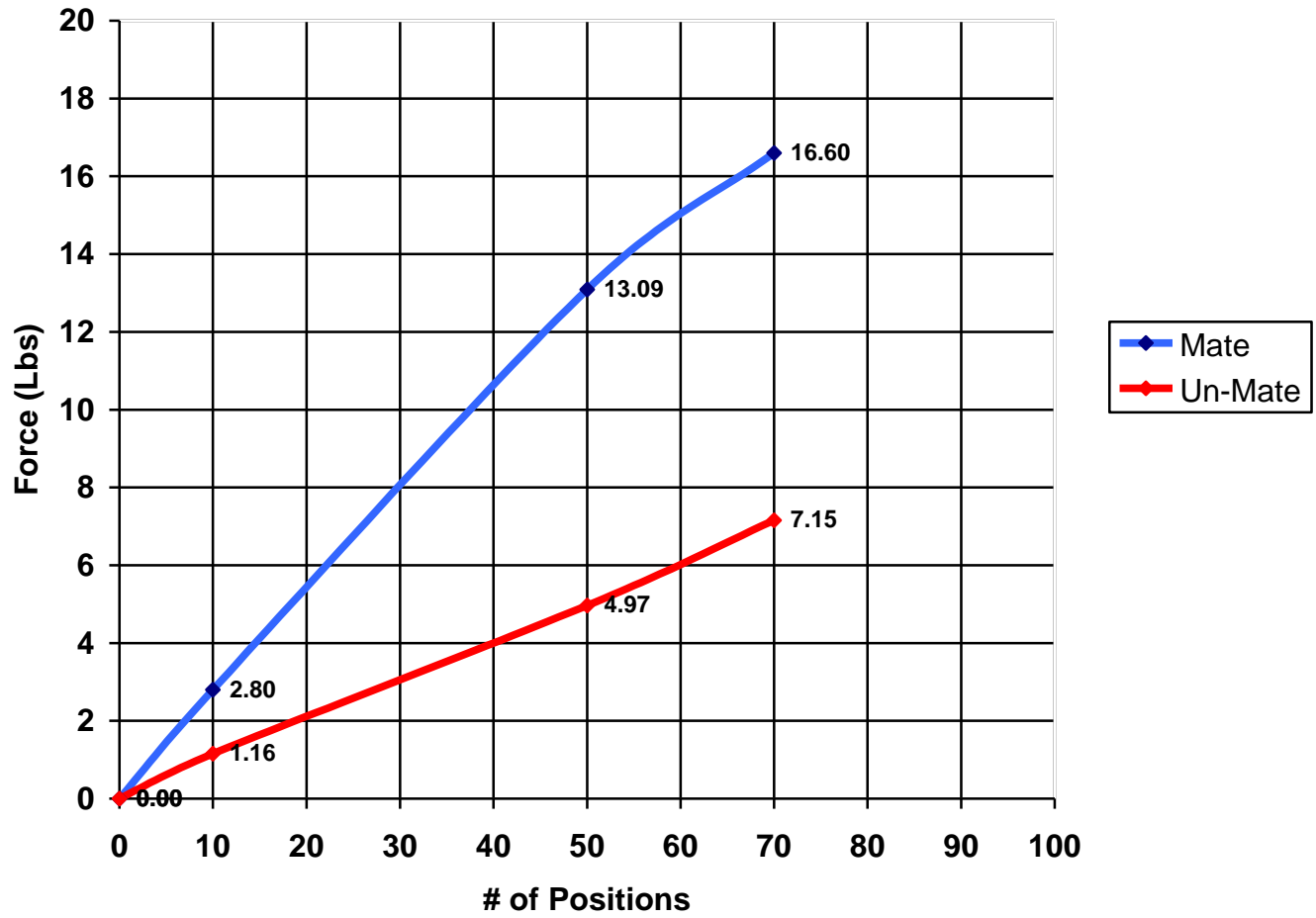
### MEC8 25 Cycles



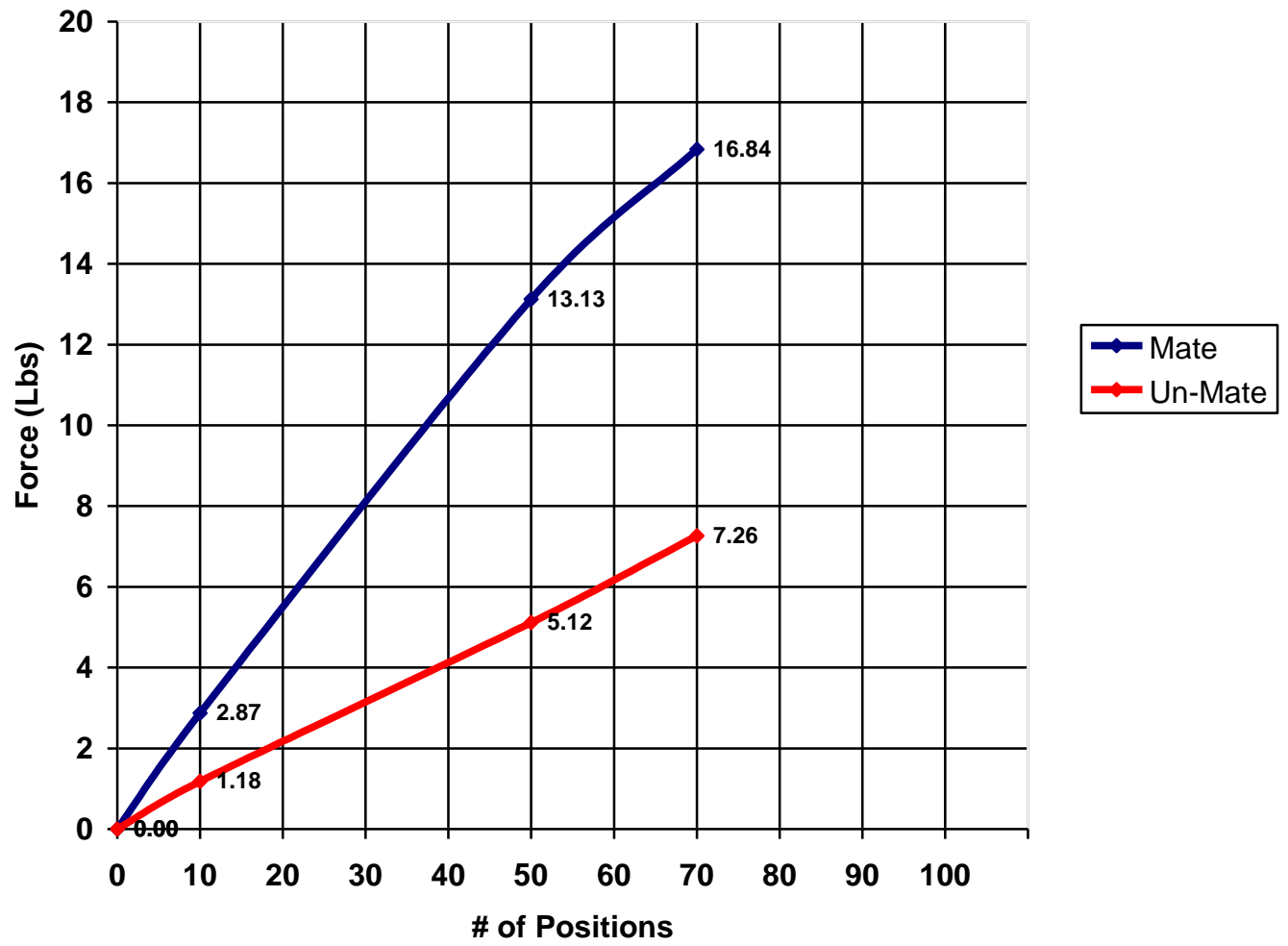
### MEC8 50 Cycles



### MEC8 75 Cycles



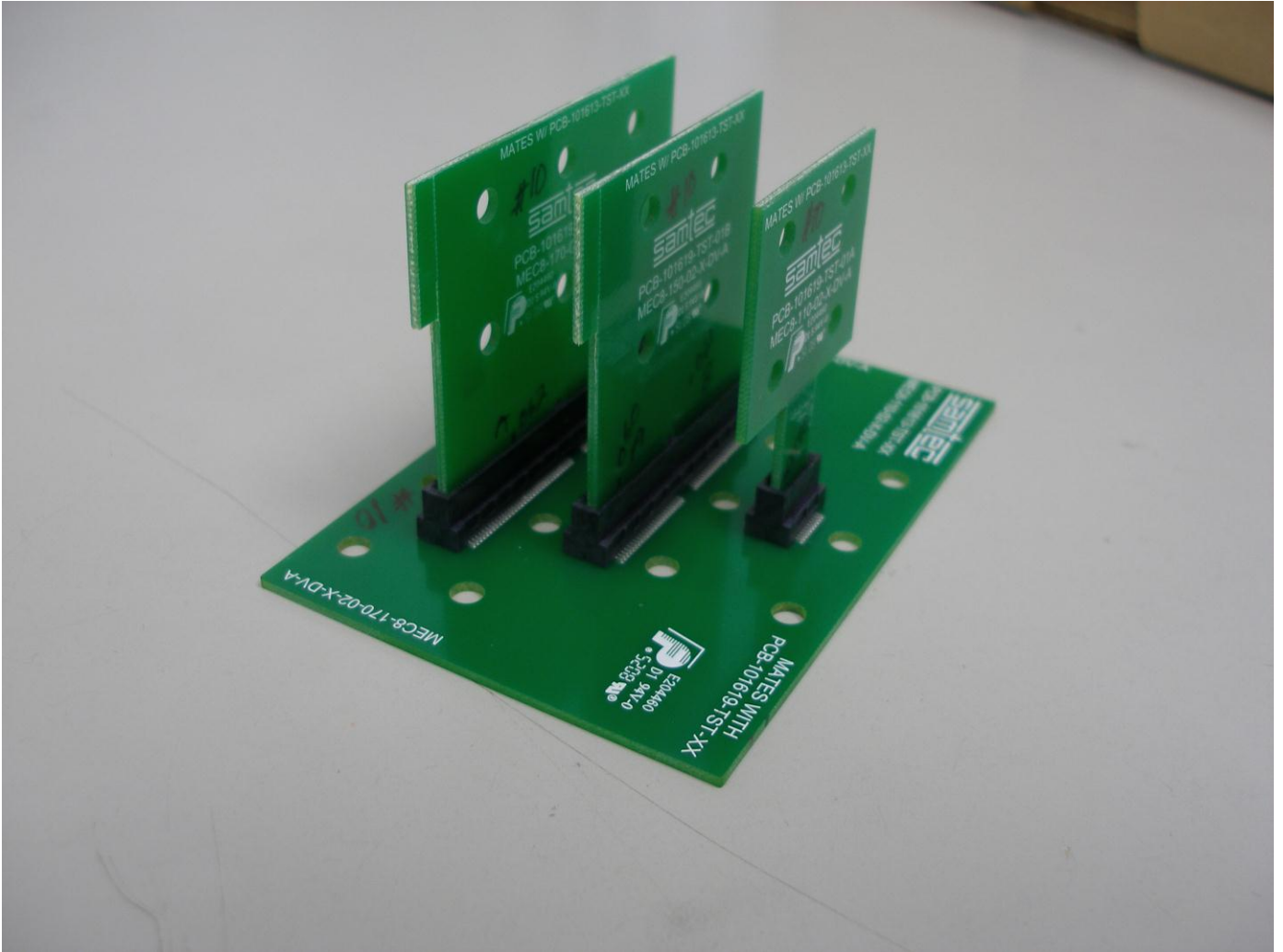
### HSEC8 100 Cycles



### PICTURES



**PICTURES Continued**



**EQUIPMENT AND CALIBRATION SCHEDULES****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: 5/06/08, Next Cal: 5/06/09

**Equipment #:** LC-500N-3**Description:** 500 N icell load cell for Dillon Test Stand**Manufacturer:** Mecmesin (Dillon/Quantrol)**Model:** ILC**Serial #:** 08-0035-02**Accuracy:** .10% of Capacity

... Last Cal: 01/05/2009, Next Cal: 01/05/2010