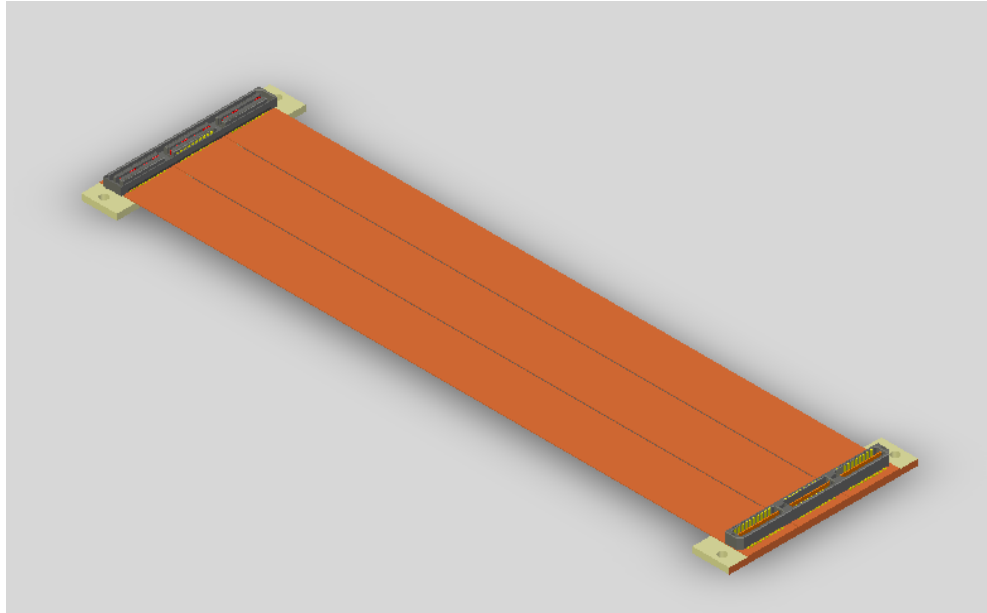




Project Number:		Tracking Code: TC0644--1201	
Requested by: Jeff Schreck		Date: 10/30/2006	Product Rev: D
Part #: HFHM2-030-T-05.00-SE		Lot #: N/A	Tech: Troy Cook Eng: Dave Scopelliti
Part description: HFHM2 SE FLEX			Qty to test: 1
Test Start: 12/13/2006	Test Completed: 12/15/2006		



PART DESCRIPTION

HFHM2-030-T-05.00-SE

Mated with QSH/QTH-030-01-X-D-A

“Flex to Failure” Test Report

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

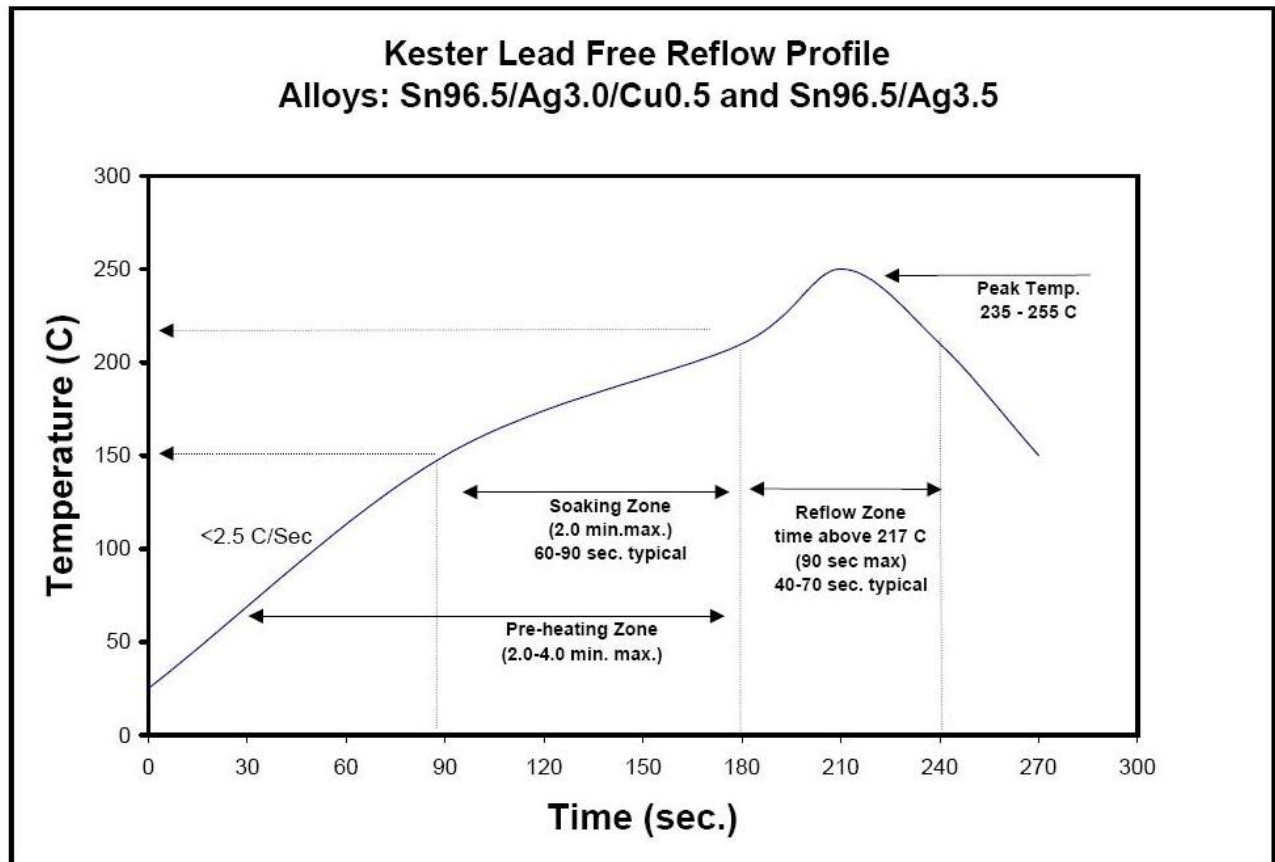
To perform the following tests: Quantify flex cycles to failure on stroke tester To perform flex testing until failure using AT-1544 cycle machine.

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) Internal Test PCBs used: PCB-100658-TST-01/02

OVEN PROFILE (Soldering Parts to Test Boards)

FLOWCHARTS

Flex Test

TEST STEP	GROUP A 2 Hz
1	Cycle until failure or 1,000,000 cycles

Cycle +/- 2mm at 25.4 mm in both directions
continuity through power cables.

ATTRIBUTE DEFINITIONS

The following is a brief, simplified description of attributes.

FLEX TESTING:

- 1) Monitor electrical continuity for open circuit indication. Automatic termination upon continuity interruption (open circuit) exceeding 11 mSec.
- 2) Run at 2.0 Hz.
- 3) Monitor power cables only for continuity
- 4) Length of Cycle = 25.4 mm +/- 2mm in both directions.

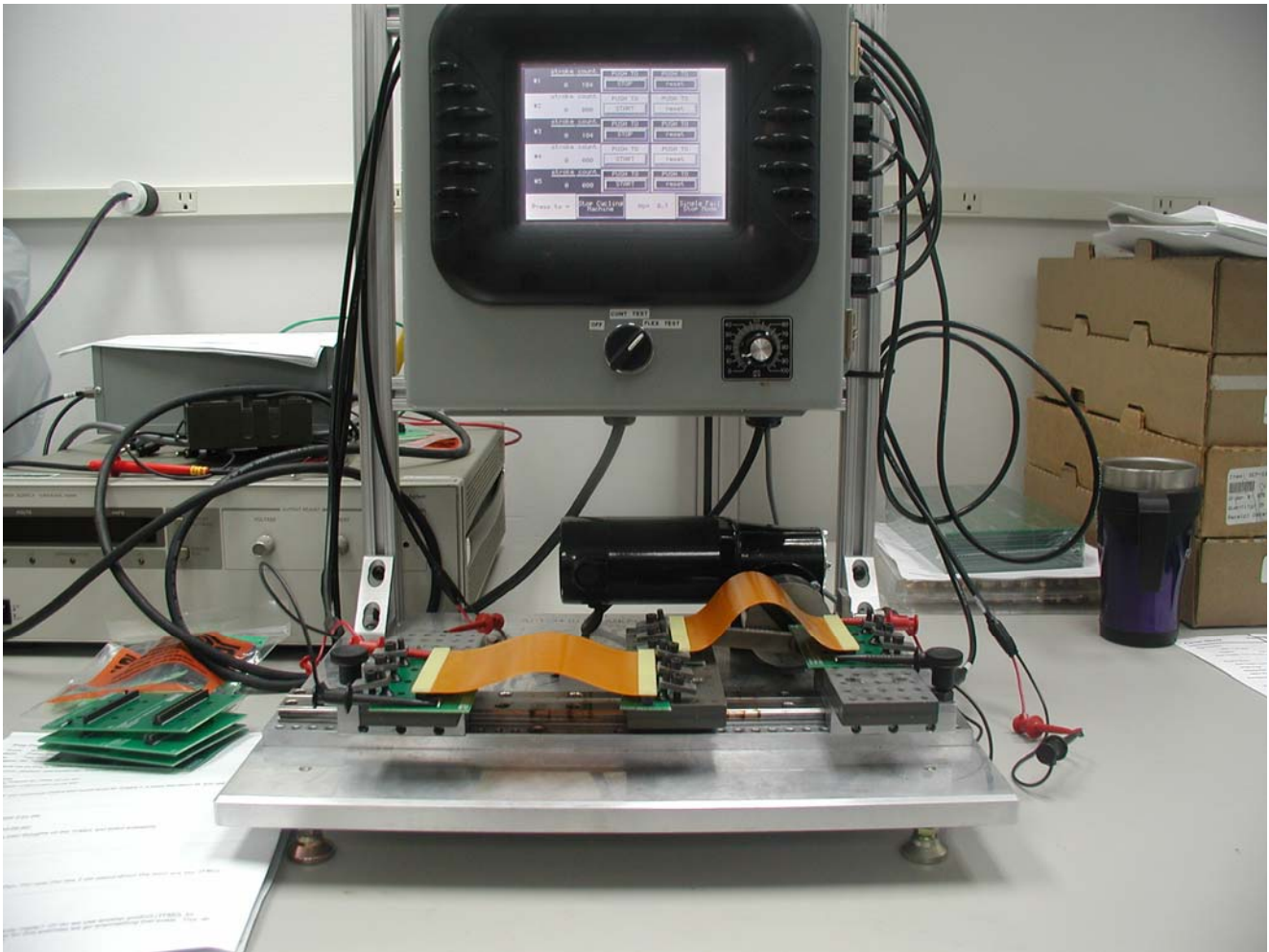


Fig. 1 – Typical set up for 2.0 Hz durability testing.

RESULTS

FLEX CONTINUITY AT 2.0 HZ

- **Sample#1:-----Failed at 121,621 cycles.**
- **Sample#2:-----Failed at 123,760 cycles.**

DATA

Test Date:	12/16/2006
Operator:	Troy Cook
Temperature (C):	22
Humidity (RH):	30%
Equipment ID:	HDR - 02
Part Number :	HFHM2-030-T-5.00-SE

Sample#	Cycle Durability		Initial Resistance (Ohms)
	Hours	Cycles	
1	16.89	121,621	26.04
2	17.19	123,760	25.77

- NOTE:**
1. The number for cycles is the number of cycles until failure. Both samples failed.
 2. Displacement = 25.4 mm (1.0 in.).
 3. Speed = 2 Hz.

EQUIPMENT AND CALIBRATION SCHEDULES**Equipment #:** THL-02**Description:** Temperature/Humidity Chart Recorder**Manufacturer:** Dickson**Model:** THDX**Serial #:** 00120351**Accuracy:** Temp: +/- 1C; Humidity: +/-2% RH (0 - 60%) +/- 3% RH (61 - 95%).

... Last Cal: 06/16/06, Next Cal: 06/16/07

Equipment #: HDR-02**Description:** HDR Cycle Tester**Manufacturer:** Samtec Inc.**Model:** AT-1544-011**Serial #:** AT-1544-011**Accuracy:** N/A

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

...