

JANUARY 5, 2007

TEST REPORT #206644, REVISION 1.1

THERMAL SHOCK TESTING

PART NUMBERS

LEADED

ASP-103612-01

ASP-103614-01

LEAD FREE

ASP-103612-02

ASP-103614-04

SAMTEC, INC.



APPROVED BY: THOMAS PEEL
PRESIDENT AND
DIRECTOR OF TEST PROGRAM DEVELOPMENT
CONTECH RESEARCH, INC.

REVISION HISTORY

DATE	REV. NO.	DESCRIPTION	ENG.
1/5/2007	1.0	Initial Issue	TP
3/14/2007	1.1	Part number editing	TP



CERTIFICATION

This is to certify that the evaluation described herein was designed and executed by personnel of Contech Research, Inc. It was performed with the concurrence of Samtec, Inc. of New Albany, IN who was the test sponsor.

All equipment and measuring instruments used during testing were calibrated and traceable to NIST according to ISO 10012-1 and ANSI/NCSL Z540-1 and MIL-STD-45662 as applicable.

All data, raw and summarized, analysis and conclusions presented herein are the property of the test sponsor. No copy of this report, except in full, shall be forwarded to any agency, customer, etc., without the written approval of the test sponsor and Contech Research.



Thomas Peel
President And
Director Of Test Program Development
Contech Research, Inc.

TP:js



SCOPE

To perform Thermal Shock testing on ASP Connectors as manufactured and submitted by the test sponsor Samtec, Inc.

APPLICABLE DOCUMENTS

1. Unless otherwise specified, the following documents of issue in effect at the time of testing performed form a part of this report to the extent as specified herein. The requirements of sub-tier specifications and/or standards apply only when specifically referenced in this report.
2. Standards: EIA Publication 364

TEST SAMPLES AND PREPARATION

1. The following test samples were submitted by the test sponsor, Samtec, Inc. for the evaluation to be performed by Contech Research, Inc.

<u>Description</u>	<u>Part Number</u>
a) ASP Socket (Lead Free)	ASP-103612-02
b) ASP Terminal (Lead Free)	ASP-103614-04
c) ASP Socket (Lead)	ASP-103612-01
d) ASP Terminal (Lead)	ASP-103614-01

2. Test samples were supplied assembled and terminated to test boards by the test sponsor.
3. Test boards for mounting test samples were supplied by the test sponsor.
4. Test cables were attached to the appropriate test PTH's of the samples for discontinuity monitoring.
5. The test samples were tested in their 'as received' condition.
6. Test set ups and/or procedures which are standard or common are not detailed or documented herein provided they are certified as being performed in accordance with the applicable (industry or military) test methods, standards and/or drawings as specified in the detail specification.
7. Unless otherwise specified in the test procedures used, no further preparation was used.



SAMPLE CODING

1. All samples were coded. Mated test samples remained with each other throughout the test group/sequences for which they were designated. Coding was performed in a manner which remained legible for the test duration.
2. The test samples were coded in the following manner:

LEAD FREE SAMPLES

LF-3-T/LF-3-S
LF-11-T/LF-9-S
LF-15-T/LF-15-S
LF-14-T/LF-14-S
LF-6-T/LF-6-S
LF-1-T/LF-1-S
LF-13-T/LF-13-T
LF-10-T/LF-10-S
LF-8-T/LF-8-S
LF-12-T/LF-12-S
LF-5-T/LF-7-S

LEAD SAMPLES

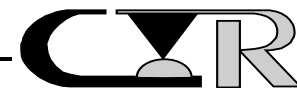
L-1-T/L-1-S
L-2-T/L-2-S
L-3-T/L-3-S
L-5-T/L-5-S
L-6-T/L-6-S
L-7-T/L-7-S



EQUIPMENT LIST

ID#	Next Cal	Last Cal	Equipment Name	Manufacturer	Model #	Serial #	Accuracy	Freq. Cal
192			Vertical Thermal Shock	Cincinnati Sub-Zero	VTS-1-5-3	88-11094	See Cal Cert	Ea Test
1175	1/18/2007	1/18/2006	Discontinuity Monitor	Metronics	DM3000-10	6-2K-1	See Cal Cert	12mon
1314	1/10/2007	1/10/2006	Multiplexer card	Keithley Co.	7708	0862544	See CERT	12mon
1315	1/10/2007	1/10/2006	Data Acquisition Multimeter	Keithley Co.	2700	0862680	See CERT	12mon
1361	1/10/2007	1/10/2006	Multiplexer Card	Keithley	7708	1067661	See Cal Cert	12mon

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TEST RESULTS



PROJECT NO.: 206644

SPECIFICATION: N/A

PART NO.: See page 4

PART DESCRIPTION: Lead Free & Lead Connectors

SAMPLE SIZE: LeadFree-11
Lead-6

TECHNICIAN: LL/TFP

START DATE: 12/26/06

COMPLETE DATE: 12/30/06

ROOM AMBIENT: 23°C

RELATIVE HUMIDITY: 30%

EQUIPMENT ID#: 192, 1175, 1314, 1315, 1361

THERMAL SHOCK

PURPOSE:

To determine the resistance of a given electrical connector to exposure at extremes of high and low temperatures and the shock of alternate exposures to these extremes, simulating the worst probable conditions of storage, transportation and application.

PROCEDURE:

1. The test environment was performed in accordance with EIA 364, Test Procedure 32 with the following conditions:
2. Test Conditions:
 - a) Number of Cycles : 100 Cycles
 - b) Hot Extreme : +125 +3°C/-0°C
 - c) Cold Extreme : -55 +0°C/-3°C
 - d) Time at Temperature : 30 Minutes
 - e) Mating Conditions : Mated
 - f) Mounting Conditions : Mounted
 - g) Transfer Time : Instantaneous
3. The total number of cycles were performed continuously.
4. The test samples were wired in series and connected to the discontinuity monitor.

REQUIREMENTS: See next page.



REQUIREMENTS:

1. There shall be no evidence of physical damage to the test samples as tested.
2. There shall be no contact interruption greater than 1.0 microsecond.

RESULTS:

1. There was no evidence of physical damage to the test samples as tested.
2. There was no interruption greater than 1.0 microsecond.

