JUNE 29, 2010

TEST REPORT #210259
REVISION 1.1

IX7 SERIES CONNECTOR TESTING

PART: IJ7-08-05.0-L-D-1
MATING PART: IP7-08-05.0-L-D-1

SAMTEC, INC.

Alice Hathaway
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PROJECT ENGINEER
CONTECH RESEARCH, INC.
ATTLEBORO, MA

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REVISION HISTORY

DATE	REV. NO.	DESCRIPTION	ENG.
6/29/2010	1.0	Initial Issue	APH
9/8/2010	1.1	Removed Test Sequences a and b	APH

CERTIFICATION

This is to certify that the IX7 series connector 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, 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.

Alice Hathaway

ALICE HATHAWAY
PROJECT ENGINEER
CONTECH RESEARCH, INC.

APH:cf

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SCOPE

To perform qualification testing on the IX7 series connector 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. Samtec Test Plan: TC0933-2683 IX7 Qual Rev 3
3. Standard: 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.

	Description	Part Number
a)	Connector (large board)	IJ7-08-05.0-L-D-1
b)	Mate (small board)	IP7-08-05.0-L-D-1

2. Test samples were supplied assembled and terminated to test boards by the test sponsor. Specific test boards were supplied for the following tests:
    - LLCR
    - Shock & Vibration, nanosecond event detection
3. Test leads were attached to the appropriate measurement areas of the test samples and applicable mating elements.
4. The test samples were tested in their ‘as received’ condition.
5. Unless otherwise specified in the test procedures used, no further preparation was used.
6. The mated test samples were secured via a stabilizing medium to maintain mechanical stability during testing, as noted in the specific test procedures.

TEST SELECTION

1. See Test Plan Flow Diagram, Figure #1, for test sequences used.

2. 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.

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:

Seq C: Group A - C-A-1, C-A-2, C-A-3, C-A-4 to C-A-15

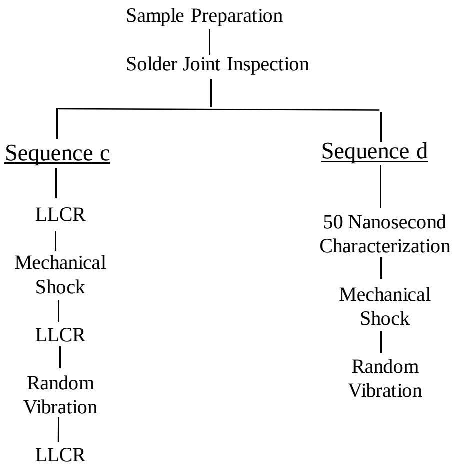
Seq D: Group A - D-A-1, D-A-2, D-A-3

Sample ID Key
Board number
Group
Seq

FIGURE #1

TEST PLAN FLOW DIAGRAM

Part: IJ7-08-05.0-L-D-1GP
Mating Part: IP7-08-05.0-L-D-1



Group A
192 signal points
165 ground points
15 mated pairs

Group A
3 mated pairs
4th pair for
control channel

LLCR : Low Level Circuit Resistance

DATA SUMMARY

SEQUENCE C

TEST	REQUIREMENT	RESULTS
LLCR, SIGNAL	RECORD	80.5 mΩ MAX.
LLCR, GROUND	RECORD	2.7 mΩ MAX.
MECHANICAL SHOCK	NO DAMAGE	PASSED
LLCR, SIGNAL	+10.0 mΩ MAX.CHG.	+13.7 mΩ MAX.CHG.
LLCR, GROUND	+10.0 mΩ MAX.CHG.	+0.4 mΩ MAX.CHG.
RANDOM VIBRATION	NO DAMAGE	PASSED
LLCR, SIGNAL	+10.0 mΩ MAX.CHG.	+4.9 mΩ MAX.CHG.
LLCR, GROUND	+10.0 mΩ MAX.CHG.	+0.5 mΩ MAX.CHG.

SEQUENCE D

TEST	REQUIREMENT	RESULTS
MECHANICAL SHOCK	NO DAMAGE	PASSED
	50 NANOSECOND	PASSED
RANDOM VIBRATION	NO DAMAGE	PASSED
	50 NANOSECOND	PASSED

EQUIPMENT LIST

ID#	Next Cal	Last Cal	Equipment Name	Manufacturer	Model #	Serial #	Accuracy	Freq.Cal
34			Shock Machine	Avco	SM110-3	1047	N/A	Ea Test
200	1/19/2011	1/19/2010	Power Supply	PCB Piezotronics	482A	4210	N/A	12mon
207	12/10/2010	12/10/2009	Micro-Ohm Meter	Keithley Co.	580	438208	See Cal Cert	12mon
282			Vibration Shaker Table	Ling Dynamics	V-730	163	N/A	N/A
545	5/28/2011	5/28/2010	Event Detector	Anatech	32/64 EHD	941206	See Cal Cert	12mon
553	3/19/2011	3/19/2010	12 channel Power Unit	PCB Co.	483A	1303	See Cal Cert	12mon
585	8/28/2010	8/28/2009	Digitizing Scope	Hewlett Packard Co.	54200A	2740A-02154	±2%	12mon
684	6/9/2011	6/9/2010	Accelerometer	PCB. Co.	353B04	47648	See Cal Cert.	12mon
874			Computer	M&P	Vectra	us75203327	N/A	N/A
1010			Plotter	Hewlett Packard	7225B	2160A2293	N/A	N/A
1028	2/16/2011	2/16/2010	Event Detector	Analysis Tech	32 EHD	981019	See Cal.Cert.	12mon
1147	12/10/2010	12/10/2009	Digital O-Scope	Tektronix	11801C	B030915	See Cal Cert.	12mon.
1276			Computer	ARC.Co.	Pent-450	N/A	N/A	N/A
1366			Main Frame	Agilent H.P.	8408A		N/A	N/A
1367			Interface	Agilent H.P.	E8491A		N/A	N/A
1368	4/30/2011	4/30/2010	Sine/Rnd Control digitizer	Agilent H.P.	E1432A	US35470169	See Manual	12mon
1474			Vib Pwr Amp	tira	A58312	003/06	N/A	N/A
1556	2/10/2011	2/10/2010	Accelerometer	PCB	353B04	122769	See Cal Cert	12mon
1620	2/11/2011	2/11/2010	Accelerometer	PCB	353B04	132590	See Cal Cert	12mon
5045	12/10/2010	12/10/2009	TDR -Sampling Head	Tektroniks	SD-24	B0221502	See Cal Cert	12 mon

TEST RESULTS

SEQUENCE C

Group A

PROJECT NO.: 210259	SPECIFICATION: TC0933-2683
PART NO.: IJ7-08-05.0-L-D-1	PART DESCRIPTION: IJ7 connector
SAMPLE SIZE: 15 Samples	TECHNICIAN: MHB
START DATE: 5/04/10	COMPLETE DATE: 5/04/10
ROOM AMBIENT: 23°C	RELATIVE HUMIDITY: 42%
EQUIPMENT ID#: 207, 1276	

LOW LEVEL CIRCUIT RESISTANCE (LLCR)

PURPOSE:

1. To evaluate contact resistance characteristics of the contact systems under conditions where applied voltages and currents do not alter the physical contact interface and will detect oxides and films which degrade electrical stability. It is also sensitive to and may detect the presence of fretting corrosion induced by mechanical or thermal environments as well as any significant loss of contact pressure.

2. This attribute was monitored after each preconditioning and/or test exposure in order to determine said stability of the contact systems as they progress through the applicable test sequences.

3. The electrical stability of the system is determined by comparing the initial resistance value to that observed after a given test exposure. The difference is the change in resistance occurring whose magnitude establishes the stability of the interface being evaluated.

PROCEDURE:

1. The test was performed in accordance with EIA 364, Test Procedure 23.

-continued on next page.

PROCEDURE:–continued

2. Test Conditions:

```
   a) Test Current            : 10 milliamps
   b) Open Circuit Voltage    : 20 millivolts
   c) No. of positions tested : 24 per sample
```

REQUIREMENTS:

Low level circuit resistance shall be measured and recorded.

RESULTS:

1. The following is a summary of the data observed:

LOW LEVEL CIRCUIT RESISTANCE
(Milliohms)

Sample ID#	Avg.	Max.	Min.
SIGNAL			
C-A-1	24.5	30.9	19.8
C-A-2	21.7	24.9	19.5
C-A-3	27.7	47.2	20.0
C-A-4	23.1	33.5	19.8
C-A-5	22.9	33.9	20.1
C-A-6	21.9	27.3	19.9
C-A-7	21.8	26.5	19.0
C-A-8	24.0	32.7	19.2
C-A-9	23.3	31.1	19.9
C-A-10	27.3	80.5	19.0
C-A-11	21.7	32.1	19.3
C-A-12	24.8	35.2	19.3
C-A-13	27.0	69.6	19.5
C-A-14	21.3	24.9	19.4
C-A-15	22.1	24.6	20.0

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RESULTS: -continued

LOW LEVEL CIRCUIT RESISTANCE
(Milliohms)

Sample ID#	Avg.	Max.	Min.
GROUND			
C-A-1	2.3	2.6	1.9
C-A-2	2.0	2.4	1.6
C-A-3	2.3	2.6	1.9
C-A-4	1.9	2.4	1.7
C-A-5	2.4	2.6	1.8
C-A-6	2.5	2.7	2.3
C-A-7	2.5	2.7	2.4
C-A-8	1.9	2.1	1.6
C-A-9	2.2	2.4	1.9
C-A-10	2.1	2.2	1.9
C-A-11	2.2	2.5	1.9
C-A-12	2.0	2.3	1.7
C-A-13	2.2	2.5	1.8
C-A-14	2.1	2.5	1.8
C-A-15	2.0	2.4	1.6

2. See data files 21025901 through 21025915 for individual signal data points.

3. See data files 21025916 through 21025930 for individual ground data points.

PROJECT NO.: 210259 SPECIFICATION: TC0933-2683

PART NO.: IJ7-08-05.0-L-D-1 PART DESCRIPTION: IJ7 connector

SAMPLE SIZE: 15 Samples TECHNICIAN: MHB

START DATE: 5/24/10 COMPLETE DATE: 5/25/10

ROOM AMBIENT: 22°C RELATIVE HUMIDITY: 34%

EQUIPMENT ID#: 34, 200, 207, 585, 1010, 1276, 1556

MECHANICAL SHOCK (SPECIFIED PULSE)

PURPOSE:

To determine the mechanical and electrical integrity of connectors for use with electronic equipment subjected to shocks such as those expected from handling, transportation, etc.

PROCEDURE:

1. The test was performed in accordance with EIA 364, Test Procedure 27, Test Condition C.

2. Test Conditions:

    a) Peak Value : 100 G
    b) Duration : 6 milliseconds
    c) Wave Form : Half-Sine
    d) Velocity : 12.3 feet per second
    e) No. of Shocks : 3 Shocks/Direction, 3 Axes (18 Total)

3. A stabilizing medium was used such that the mated test samples did not separate during testing.

4. Figure #2 illustrates the test sample fixturing utilized during the test.

5. All subsequent variable testing was performed in accordance with the procedures previously indicated.

REQUIREMENTS: See Next Page

REQUIREMENTS:

1. There shall be no evidence of physical damage to the test samples as tested.
2. The change in low level circuit resistance shall not exceed +10.0 milliohms.

RESULTS:

1. There was no evidence of physical damage to the test samples as tested.
2. The following is a summary of the data observed:

CHANGE IN
LOW LEVEL CIRCUIT RESISTANCE
(Milliohms)

Sample ID#	Avg. Change	Max. Change
SIGNAL		
C-A-1	-3.3	-0.2
C-A-2	-1.0	+0.4
C-A-3	-3.8	+1.8
C-A-4	-1.5	+0.9
C-A-5	-0.6	+7.3
C-A-6	-1.0	+0.9
C-A-7	-0.2	+1.4
C-A-8	-1.5	+2.0
C-A-9	+0.0	+4.7
C-A-10	-4.7	+1.6
C-A-11	-0.7	+2.0
C-A-12	-3.4	+0.5
C-A-13	+0.9	+13.7
C-A-14	+1.1	+6.6
C-A-15	-0.5	+2.0

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RESULTS: -continued

CHANGE IN
LOW LEVEL CIRCUIT RESISTANCE
(Milliohms)

Sample ID#	Avg. Change	Max. Change
GROUND		
C-A-1	+0.0	+0.4
C-A-2	-0.0	+0.0
C-A-3	+0.0	+0.1
C-A-4	+0.0	+0.1
C-A-5	-0.0	+0.1
C-A-6	-0.0	+0.2
C-A-7	-0.0	+0.1
C-A-8	-0.0	+0.0
C-A-9	-0.0	-0.0
C-A-10	-0.0	+0.0
C-A-11	+0.1	+0.4
C-A-12	-0.0	+0.0
C-A-13	-0.0	+0.0
C-A-14	-0.0	+0.1
C-A-15	+0.0	+0.2

3. See data files 21025901 through 21025915 for individual signal data points.

4. See data files 21025916 through 21025930 for individual ground data points.

5. The Mechanical Shock characteristics are shown in Figures #3 (Calibration Pulse) and #4 (Test Pulse). Each figure displays the shock pulse contained within the upper and lower limits as defined by the appropriate test specification.

FIGURE #2

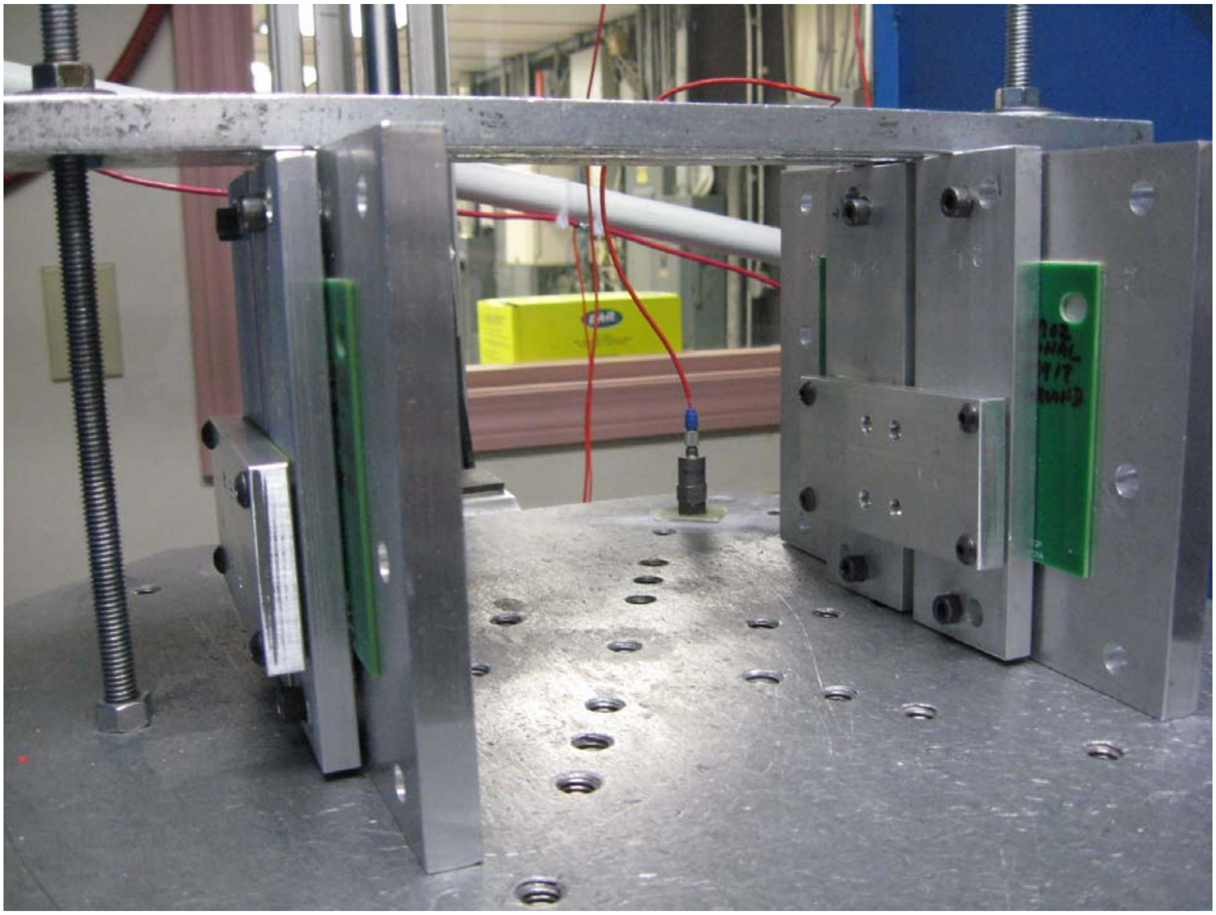
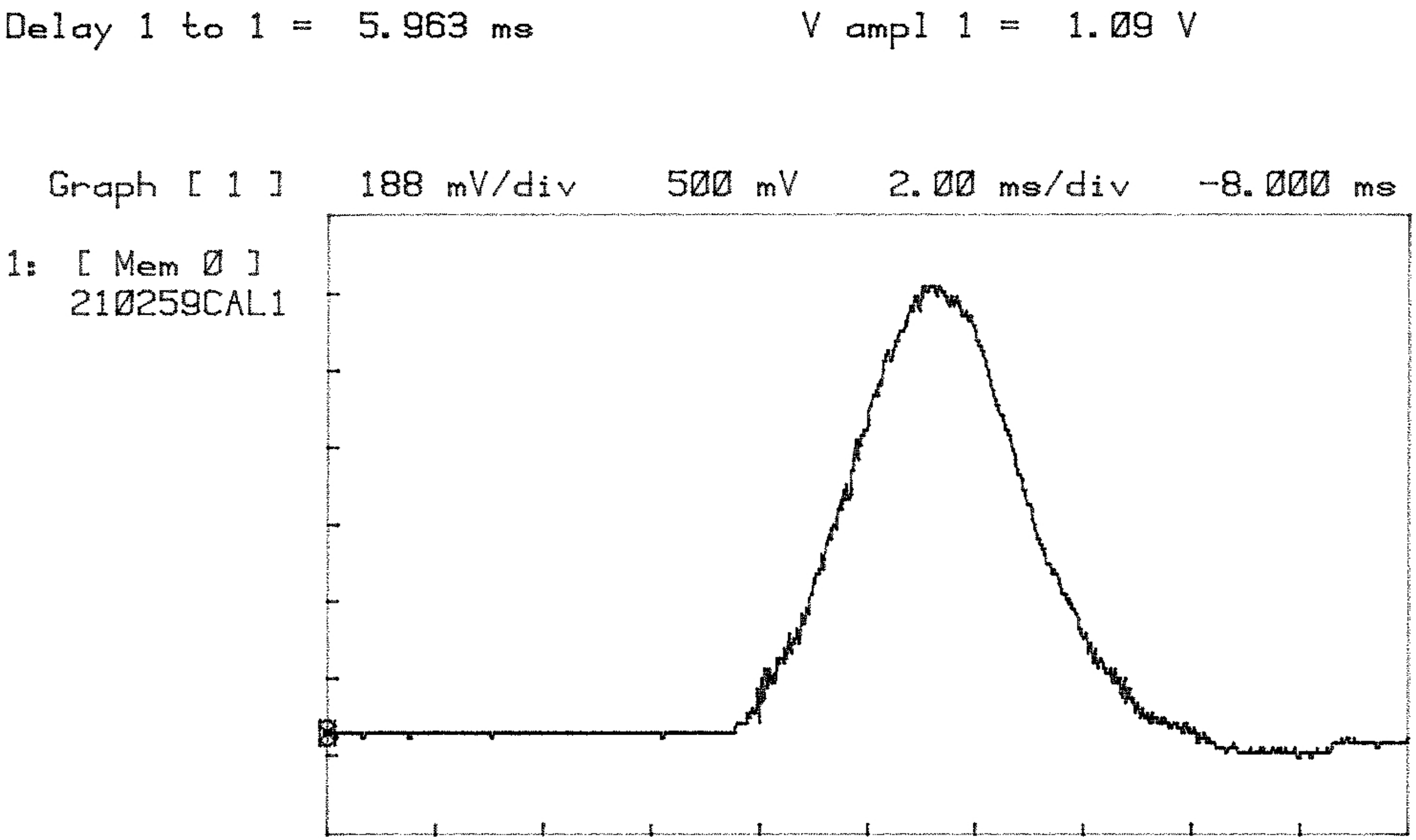


FIGURE #3

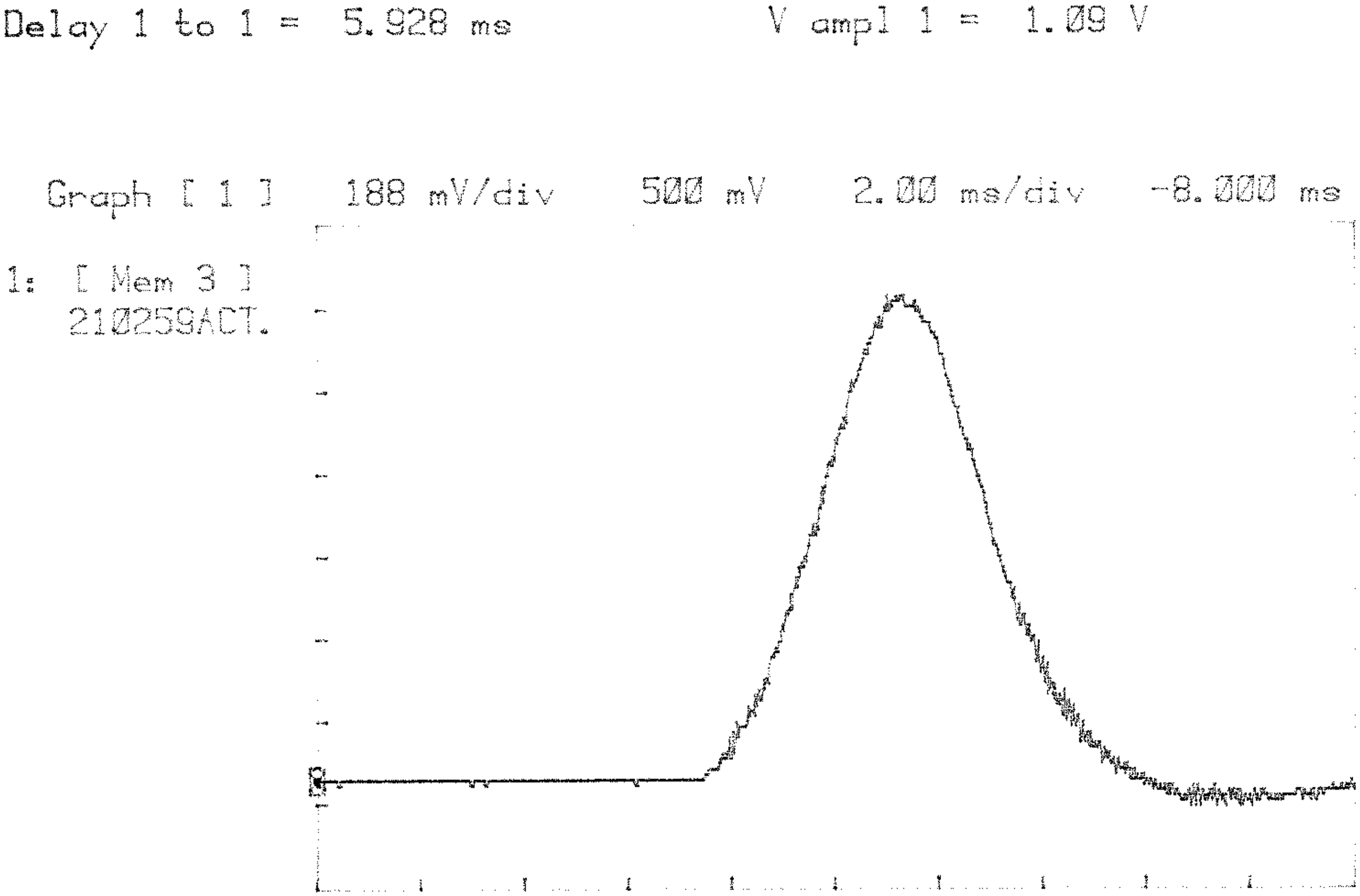


Delay 1 to 1 = 5.963 ms   V ampl 1 = 1.09 V

Graph [1]   188 mV/div   500 mV   2.00 ms/div   -8.000 ms

1: [Mem 0]
210259CAL1

FIGURE #4



Delay 1 to 1 = 5.928 ms   V ampl 1 = 1.09 V

Graph [1] 188 mV/div 500 mV 2.00 ms/div -8.000 ms

1: [Mem 3]
210259ACT.

PROJECT NO.: 210259 SPECIFICATION: TC0933-2683

PART NO.: IJ7-08-05.0-L-D-1 PART DESCRIPTION: IJ7 connector

SAMPLE SIZE: 15 Samples TECHNICIAN: MHB

START DATE: 5/27/10 COMPLETE DATE: 6/01/10

ROOM AMBIENT: 21°C RELATIVE HUMIDITY: 47%

EQUIPMENT ID#: 207, 282, 553, 684, 874, 1276, 1366, 1367, 1368, 1474

VIBRATION, RANDOM

PURPOSE:

1. To establish the mechanical integrity of the test samples exposed to external mechanical stresses.

2. To determine if the contact system is susceptible to fretting corrosion.

3. To determine if the electrical stability of the system has degraded when exposed to a vibratory environment.

PROCEDURE:

1. The test was performed in accordance with EIA 364, Test Procedure 28, Test Condition V, Letter B.

2. Test Conditions:

    a) Power Spectral Density : 0.04 g^2/Hz
    b) G 'rms' : 7.56
    c) Frequency : 50 to 2000 Hz
    d) Duration : 2.0 hrs per axis, 3 axes total

3. A stabilizing medium was used such that the mated test samples did not separate during the test.

4. Figure #5 illustrates the test sample fixturing utilized during the test.

-continued on next page.

PROCEDURE: -continued

5. All subsequent variable testing was performed in accordance with procedures previously indicated.

REQUIREMENTS:

1. There shall be no evidence of physical damage to the test samples as tested.

2. The change in low level circuit resistance shall not exceed +10.0 milliohms.

RESULTS:

1. There was no evidence of physical damage to the test samples as tested.

2. The following is a summary of the observed data:

CHANGE IN
LOW LEVEL CIRCUIT RESISTANCE
(Milliohms)

Sample ID#	Avg. Change	Max. Change
SIGNAL		
C-A-1	-3.8	+0.0
C-A-2	-1.1	+0.4
C-A-3	-6.7	+0.2
C-A-4	-1.8	+0.9
C-A-5	-1.6	+1.0
C-A-6	-1.6	+1.5
C-A-7	-1.5	+0.5
C-A-8	-3.8	+0.8
C-A-9	-1.4	+2.9
C-A-10	-6.6	-0.0
C-A-11	-1.0	+2.7
C-A-12	-5.0	-0.1
C-A-13	-3.3	+4.9
C-A-14	-0.5	+2.7
C-A-15	-0.7	+1.9

-continued on next page.

RESULTS: -continued

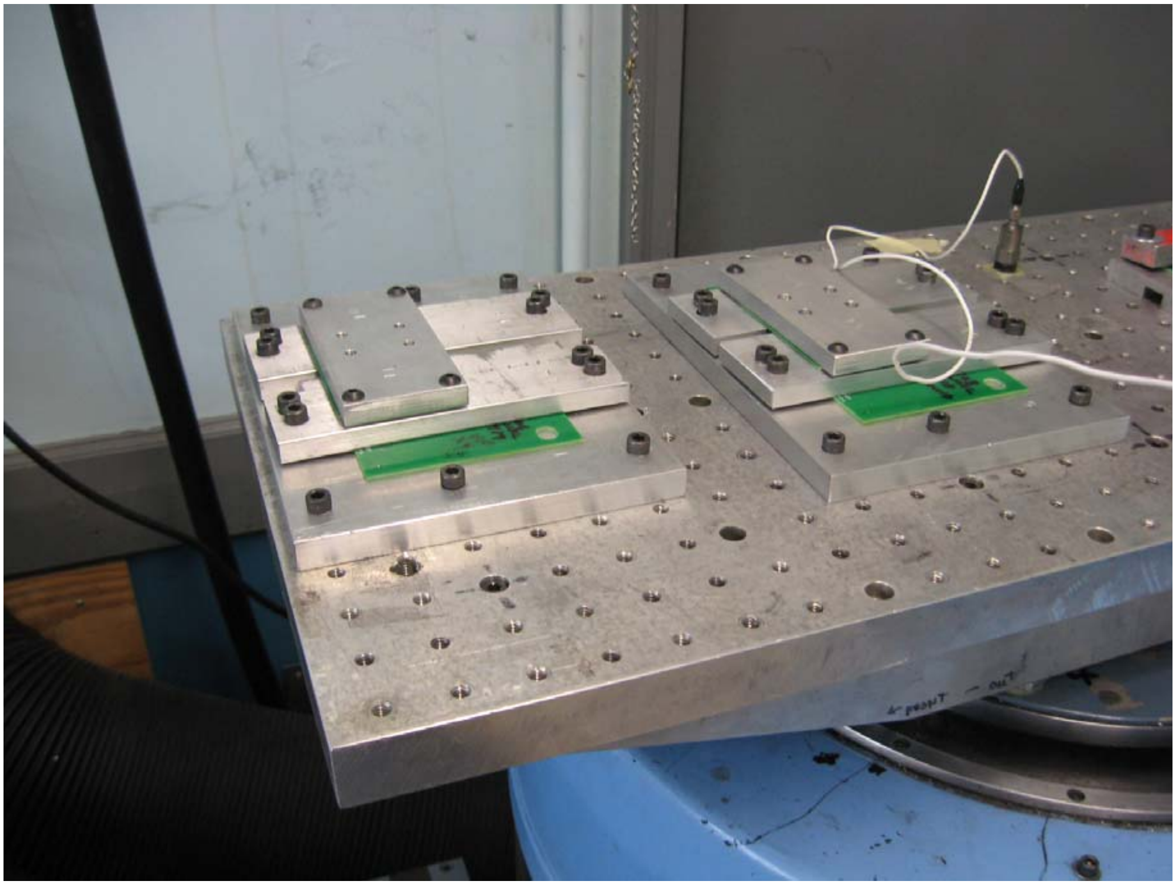
CHANGE IN
LOW LEVEL CIRCUIT RESISTANCE
(Milliohms)

Sample ID#	Avg. Change	Max. Change
GROUND		
C-A-1	+0.0	+0.1
C-A-2	-0.0	+0.1
C-A-3	+0.0	+0.2
C-A-4	+0.0	+0.2
C-A-5	+0.0	+0.2
C-A-6	-0.0	+0.1
C-A-7	-0.0	+0.3
C-A-8	-0.0	+0.0
C-A-9	-0.0	+0.0
C-A-10	+0.0	+0.1
C-A-11	+0.1	+0.5
C-A-12	+0.2	+0.4
C-A-13	+0.1	+0.3
C-A-14	-0.0	+0.1
C-A-15	+0.0	+0.1

3. See data files 21025901 through 21025915 for individual signal data points.

4. See data files 21025916 through 21025930 for individual ground data points.

FIGURE #5



LLCR DATA FILES

SIGNAL DATA

21025901
21025902
21025903
21025904
21025905
21025906
21025907
21025908
21025909
21025910
21025911
21025912
21025913
21025914
21025915

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025901
Description:	ID# C-A-1 Signal		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
1	20.8	-0.8	-0.8	
3	24.2	-1.7	-1.5	
5	21.5	-1.9	-1.5	
7	22.1	-1.4	-0.2	
10	20.9	-0.2	0.0	
12	22.8	-1.2	-2.2	
13	27.8	-1.2	-6.0	
15	22.2	-1.5	-3.0	
17	19.8	-0.6	-0.6	
19	28.4	-6.7	-7.1	
20	29.6	-9.1	-9.2	
22	30.9	-9.5	-9.6	
24	28.2	-7.5	-7.1	
MAX	30.9	-0.2	0.0	
MIN	19.8	-9.5	-9.6	
AVG	24.5	-3.3	-3.8	
STD	3.9	3.5	3.5	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

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Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025902
Description:	ID# C-A-2 Signal		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
1	21.2	0.3	0.3	
3	19.6	-0.2	-0.2	
5	22.0	-1.1	-0.6	
7	24.9	-3.1	-3.4	
10	23.7	-1.4	-1.2	
12	19.5	0.3	0.4	
13	23.2	-2.4	-1.4	
15	22.1	-1.5	-2.1	
17	21.2	0.4	-0.1	
19	20.2	-1.0	-1.3	
20	21.7	-2.0	-2.2	
22	21.6	-1.5	-1.6	
24	21.3	0.2	-1.3	
MAX	24.9	0.4	0.4	
MIN	19.5	-3.1	-3.4	
AVG	21.7	-1.0	-1.1	
STD	1.6	1.1	1.1	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025903
Description:	ID# C-A-3 Signal		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
1	27.1	-6.3	-6.6	
3	25.4	-2.2	-3.7	
5	23.2	-2.4	-2.2	
7	22.2	-2.2	-2.1	
10	22.3	1.7	-1.9	
12	20.0	1.8	0.2	
13	47.2	-4.8	-23.8	
15	29.1	-10.0	-9.6	
17	26.6	-3.4	-4.4	
19	41.9	-15.2	-18.7	
20	20.7	-0.8	-1.1	
22	31.0	-4.6	-10.3	
24	22.9	-1.5	-3.1	
MAX	47.2	1.8	0.2	
MIN	20.0	-15.2	-23.8	
AVG	27.7	-3.8	-6.7	
STD	8.2	4.6	7.2	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025904
Description:	ID# C-A-4 Signal		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
1	20.6	0.5	0.9	
3	20.8	0.9	0.6	
5	19.8	0.0	0.6	
7	19.8	-0.2	-0.6	
10	20.4	-0.2	-0.3	
12	21.0	0.7	0.1	
13	21.9	-1.4	-1.6	
15	24.0	-0.7	-1.9	
17	21.4	0.0	-0.3	
19	22.0	-0.9	-1.0	
20	31.7	-9.4	-10.5	
22	33.5	-8.1	-7.6	
24	22.8	0.1	-2.0	
MAX	33.5	0.9	0.9	
MIN	19.8	-9.4	-10.5	
AVG	23.1	-1.5	-1.8	
STD	4.4	3.3	3.4	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values

Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025905
Description:	ID# C-A-5 Signal		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
1	20.5	-0.2	0.4	
3	20.9	0.6	1.0	
5	24.9	-3.2	-3.2	
7	20.4	0.1	-0.9	
10	21.1	0.8	-1.2	
12	20.5	0.8	-0.5	
13	20.1	-0.9	-0.9	
15	22.1	-1.4	0.1	
17	21.4	-0.6	-0.8	
19	24.4	7.3	-0.7	
20	25.4	-4.2	-1.8	
22	33.9	-9.8	-10.2	
24	21.8	2.2	-1.7	
MAX	33.9	7.3	1.0	
MIN	20.1	-9.8	-10.2	
AVG	22.9	-0.6	-1.6	
STD	3.8	3.9	2.8	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025906
Description:	ID# C-A-6 Signal		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
1	24.9	-4.2	-5.0	
3	20.3	-0.5	-0.2	
5	20.4	-0.4	0.1	
7	19.9	-0.2	-0.9	
10	19.9	0.1	1.5	
12	21.6	0.9	-1.2	
13	20.5	0.4	0.6	
15	21.9	-0.4	-1.4	
17	22.7	-1.3	-2.7	
19	27.3	-6.3	-6.9	
20	22.8	-1.3	-2.3	
22	22.0	-0.7	-1.1	
24	20.3	0.9	-1.6	
MAX	27.3	0.9	1.5	
MIN	19.9	-6.3	-6.9	
AVG	21.9	-1.0	-1.6	
STD	2.2	2.1	2.3	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025907
Description:	ID# C-A-7 Signal		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
1	26.5	-1.9	-5.2	
3	24.3	-0.7	-2.0	
5	20.0	1.0	0.0	
7	23.3	-2.3	-3.5	
10	20.8	0.8	0.3	
12	19.0	0.7	0.5	
13	21.6	-0.8	-1.9	
15	22.0	-0.1	-0.9	
17	21.7	0.2	-1.0	
19	20.0	0.2	-0.5	
20	21.8	-1.5	-2.2	
22	21.9	0.6	-1.6	
24	21.2	1.4	-1.9	
MAX	26.5	1.4	0.5	
MIN	19.0	-2.3	-5.2	
AVG	21.8	-0.2	-1.5	
STD	2.0	1.2	1.6	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025908
Description:	ID# C-A-8 Signal		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
1	24.2	0.9	-2.6	
3	22.4	2.0	-1.5	
5	25.9	-3.6	-5.2	
7	21.6	-0.3	-1.5	
10	19.7	1.6	0.8	
12	19.3	1.4	0.6	
13	27.4	-4.4	-6.8	
15	21.8	0.6	-2.8	
17	20.5	-0.2	-1.3	
19	31.0	-2.5	-11.4	
20	32.7	-11.7	-13.5	
22	25.7	-4.0	-4.8	
24	19.2	1.0	0.0	
MAX	32.7	2.0	0.8	
MIN	19.2	-11.7	-13.5	
AVG	24.0	-1.5	-3.8	
STD	4.4	3.8	4.5	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025909
Description:	ID# C-A-9 Signal		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
1	20.3	2.3	0.0	
3	22.7	3.3	1.5	
5	21.0	0.9	-1.0	
7	25.6	-3.3	-3.7	
10	21.1	-1.7	-1.8	
12	19.9	1.3	1.8	
13	23.9	2.3	2.9	
15	21.8	1.5	1.1	
17	31.1	-3.1	-8.3	
19	23.5	-1.4	-1.9	
20	25.9	-3.3	-4.6	
22	26.1	-3.6	-4.8	
24	20.4	4.7	1.2	
MAX	31.1	4.7	2.9	
MIN	19.9	-3.6	-8.3	
AVG	23.3	0.0	-1.4	
STD	3.2	2.8	3.2	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025910
Description:	ID# C-A-10 Signal		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
1	24.6	-0.9	-3.4	
3	29.2	-1.0	-5.4	
5	21.3	-0.2	-1.6	
7	23.8	-1.8	-1.4	
10	19.0	0.6	0.0	
12	20.9	1.0	-1.7	
13	80.5	-54.1	-59.7	
15	24.4	1.6	-2.5	
17	24.1	-3.2	-3.8	
19	24.9	-1.9	-3.3	
20	20.9	-1.0	-1.7	
22	20.9	-0.6	-1.4	
24	20.5	0.4	-0.3	
MAX	80.5	1.6	0.0	
MIN	19.0	-54.1	-59.7	
AVG	27.3	-4.7	-6.6	
STD	16.2	14.9	16.0	
Open	0	0	0.0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025911
Description:	ID# C-A-11 Signal		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
1	20.1	0.7	1.7	
3	20.2	-0.1	0.0	
5	21.5	-1.9	-2.7	
7	32.1	-9.0	-11.3	
10	19.3	0.6	0.3	
12	19.6	0.9	-0.4	
13	20.5	0.5	-0.5	
15	20.1	0.8	0.1	
17	20.9	2.0	-0.6	
19	20.6	1.2	2.7	
20	19.3	0.4	1.0	
22	28.0	-4.8	-3.6	
24	20.2	0.1	0.1	
MAX	32.1	2.0	2.7	
MIN	19.3	-9.0	-11.3	
AVG	21.7	-0.7	-1.0	
STD	3.8	3.0	3.5	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025912
Description:	ID# C-A-12 Signal		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
1	21.9	0.0	-2.2	
3	29.3	-8.8	-10.0	
5	35.2	-11.9	-14.2	
7	25.2	-1.6	-5.5	
10	19.9	-0.4	-0.1	
12	20.1	0.1	-0.6	
13	28.7	-2.8	-7.6	
15	19.3	-0.1	-0.6	
17	21.1	0.5	-1.9	
19	21.1	-1.9	-2.3	
20	34.5	-13.4	-14.3	
22	21.6	-1.6	-2.6	
24	24.1	-2.2	-2.8	
MAX	35.2	0.5	-0.1	
MIN	19.3	-13.4	-14.3	
AVG	24.8	-3.4	-5.0	
STD	5.5	4.7	5.0	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025913
Description:	ID# C-A-13 Signal		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
1	30.0	-8.0	-1.7	
3	34.2	-4.4	-6.4	
5	21.0	4.5	-0.5	
7	69.6	5.5	-46.1	
10	22.2	3.1	-1.0	
12	19.9	1.6	0.8	
13	23.4	13.7	1.7	
15	19.5	1.0	0.8	
17	22.3	0.7	4.8	
19	21.7	-0.5	2.4	
20	25.0	-4.1	-2.7	
22	20.7	0.2	4.9	
24	21.8	-2.0	0.0	
MAX	69.6	13.7	4.9	
MIN	19.5	-8.0	-46.1	
AVG	27.0	0.9	-3.3	
STD	13.5	5.4	13.2	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025914
Description:	ID# C-A-14 Signal		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
1	20.1	0.3	0.4	
3	20.0	3.0	2.0	
5	20.4	1.1	0.0	
7	24.9	-3.4	-3.7	
10	23.8	-2.2	-2.9	
12	19.8	2.0	0.4	
13	23.8	6.6	2.7	
15	20.2	0.2	-0.1	
17	19.4	0.5	0.6	
19	20.2	0.6	0.2	
20	21.7	0.9	-2.0	
22	22.7	3.6	-2.9	
24	20.6	0.4	-0.8	
MAX	24.9	6.6	2.7	
MIN	19.4	-3.4	-3.7	
AVG	21.3	1.1	-0.5	
STD	1.8	2.5	1.9	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values

Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025915
Description:	ID# C-A-15 Signal		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
1	21.9	1.0	-0.9	
3	22.8	-0.7	-1.0	
5	20.5	0.7	-0.2	
7	24.6	-2.7	-3.1	
10	20.2	2.0	1.9	
12	23.3	-1.2	-1.0	
13	21.9	0.1	0.0	
15	20.0	-0.2	1.8	
17	22.2	-1.5	-1.5	
19	23.0	-1.6	-2.9	
20	23.5	-2.8	-2.6	
22	22.5	0.9	-1.2	
24	21.4	-0.3	1.7	
MAX	24.6	2.0	1.9	
MIN	20.0	-2.8	-3.1	
AVG	22.1	-0.5	-0.7	
STD	1.3	1.4	1.7	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

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LLCR DATA FILES

GROUND DATA

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Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025916
Description:	ID# C-A-1 Ground		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
2	2.6	0.0	0.0	
4	2.5	0.0	0.0	
6	2.5	0.0	0.1	
8	2.4	0.0	0.0	
9	2.2	0.4	0.1	
11	1.9	0.0	-0.1	
14	2.2	0.0	0.0	
16	2.3	0.0	0.0	
18	2.2	0.0	0.0	
21	2.3	0.0	0.0	
23	2.1	0.2	0.0	
MAX	2.6	0.4	0.1	
MIN	1.9	0.0	-0.1	
AVG	2.3	0.0	0.0	
STD	0.2	0.1	0.1	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025917
Description:	ID# C-A-2 Ground		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
2	2.3	0.0	0.0	
4	2.2	0.0	0.0	
6	2.3	0.0	0.0	
8	2.3	0.0	0.0	
9	2.4	0.0	0.1	
11	1.6	0.0	0.0	
14	1.6	0.0	0.0	
16	1.9	-0.1	-0.2	
18	1.9	0.0	-0.1	
21	1.9	0.0	-0.1	
23	1.6	-0.1	0.0	
MAX	2.4	0.0	0.1	
MIN	1.6	-0.1	-0.2	
AVG	2.0	0.0	0.0	
STD	0.3	0.0	0.1	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values

Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025918
Description:	ID# C-A-3 Ground		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
2	2.5	0.0	0.0	
4	2.5	0.0	0.0	
6	2.6	0.0	-0.1	
8	2.6	0.0	0.0	
9	2.2	0.0	0.0	
11	1.9	0.0	0.0	
14	2.4	0.0	0.0	
16	2.3	0.0	0.0	
18	1.9	0.0	0.1	
21	2.1	0.1	0.1	
23	1.9	0.1	0.2	
MAX	2.6	0.1	0.2	
MIN	1.9	0.0	-0.1	
AVG	2.3	0.0	0.0	
STD	0.3	0.1	0.1	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025919
Description:	ID# C-A-4 Ground		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
2	2.0	0.0	0.1	
4	2.1	0.0	0.0	
6	2.0	0.0	0.0	
8	1.9	0.0	0.0	
9	2.4	-0.1	0.0	
11	1.9	0.0	0.0	
14	2.1	0.0	0.1	
16	1.7	0.0	0.0	
18	1.7	0.0	0.0	
21	1.8	0.0	0.0	
23	1.7	0.1	0.2	
MAX	2.4	0.1	0.2	
MIN	1.7	-0.1	0.0	
AVG	1.9	0.0	0.0	
STD	0.2	0.0	0.1	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025920
Description:	ID# C-A-5 Ground		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
2	2.6	0.0	0.0	
4	2.6	0.0	0.0	
6	2.6	0.0	0.0	
8	2.6	0.0	0.0	
9	2.5	0.0	0.0	
11	2.4	-0.1	0.0	
14	1.8	0.1	0.2	
16	2.3	0.0	0.0	
18	2.2	0.0	0.0	
21	2.3	0.0	0.0	
23	2.1	0.0	0.1	
MAX	2.6	0.1	0.2	
MIN	1.8	-0.1	0.0	
AVG	2.4	0.0	0.0	
STD	0.3	0.0	0.1	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025921
Description:	ID# C-A-6 Ground		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
2	2.5	0.0	0.0	
4	2.6	0.0	-0.1	
6	2.5	0.0	0.0	
8	2.7	0.0	-0.1	
9	2.4	0.2	0.1	
11	2.5	-0.1	0.0	
14	2.5	0.0	0.0	
16	2.5	-0.1	0.0	
18	2.4	0.0	0.0	
21	2.3	0.0	-0.1	
23	2.5	0.0	0.0	
MAX	2.7	0.2	0.1	
MIN	2.3	-0.1	-0.1	
AVG	2.5	0.0	0.0	
STD	0.1	0.1	0.0	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025922
Description:	ID# C-A-7 Ground		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
2	2.7	0.0	0.0	
4	2.6	-0.1	-0.1	
6	2.6	0.0	0.0	
8	2.5	0.0	0.0	
9	2.5	-0.2	-0.1	
11	2.5	0.0	-0.1	
14	2.4	0.0	0.0	
16	2.5	0.0	0.0	
18	2.6	0.0	0.0	
21	2.4	0.0	0.0	
23	2.6	0.1	0.3	
MAX	2.7	0.1	0.3	
MIN	2.4	-0.2	-0.1	
AVG	2.5	0.0	0.0	
STD	0.1	0.1	0.1	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025923
Description:	ID# C-A-8 Ground		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
2	2.1	0.0	0.0	
4	2.0	0.0	0.0	
6	2.1	0.0	-0.1	
8	2.0	0.0	0.0	
9	1.9	0.0	-0.1	
11	1.6	0.0	0.0	
14	1.7	0.0	0.0	
16	1.7	0.0	0.0	
18	1.7	0.0	0.0	
21	1.6	0.0	-0.1	
23	2.1	0.0	0.0	
MAX	2.1	0.0	0.0	
MIN	1.6	0.0	-0.1	
AVG	1.9	0.0	0.0	
STD	0.2	0.0	0.0	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

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Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025924
Description:	ID# C-A-9 Ground		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
2	2.1	0.0	-0.1	
4	2.3	0.0	0.0	
6	2.2	0.0	0.0	
8	2.2	0.0	0.0	
9	2.1	0.0	0.0	
11	2.2	-0.1	0.0	
14	2.4	0.0	0.0	
16	2.2	0.0	0.0	
18	1.9	0.0	0.0	
21	2.0	0.0	0.0	
23	2.3	0.0	0.0	
MAX	2.4	0.0	0.0	
MIN	1.9	-0.1	-0.1	
AVG	2.2	0.0	0.0	
STD	0.1	0.0	0.0	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025925
Description:	ID# C-A-10 Ground		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
2	2.2	0.0	0.0	
4	2.1	0.0	0.0	
6	2.2	0.0	0.0	
8	2.2	0.0	0.0	
9	1.9	0.0	0.1	
11	1.9	0.0	0.1	
14	2.1	0.0	0.0	
16	2.2	0.0	0.0	
18	2.1	0.0	0.0	
21	2.1	0.0	0.0	
23	2.1	-0.1	0.1	
MAX	2.2	0.0	0.1	
MIN	1.9	-0.1	0.0	
AVG	2.1	0.0	0.0	
STD	0.1	0.0	0.0	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

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Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence “c"
Product:	IJ7 Connector		File No:	21025926
Description:	ID# C-A-11 Ground		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
2	2.2	0.0	-0.1	
4	2.1	0.0	0.0	
6	1.9	0.0	0.0	
8	2.2	0.0	0.0	
9	1.9	0.0	0.0	
11	2.0	0.1	0.1	
14	2.5	-0.1	0.1	
16	2.3	0.3	0.1	
18	2.3	0.0	0.1	
21	2.4	0.0	0.0	
23	2.0	0.4	0.5	
MAX	2.5	0.4	0.5	
MIN	1.9	-0.1	-0.1	
AVG	2.2	0.1	0.1	
STD	0.2	0.2	0.2	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025927
Description:	ID# C-A-12 Ground		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
2	2.2	0.0	0.1	
4	2.3	-0.1	0.2	
6	2.1	0.0	0.4	
8	2.2	-0.1	0.3	
9	2.0	0.0	0.0	
11	2.0	0.0	0.0	
14	2.0	0.0	0.2	
16	1.7	0.0	0.2	
18	1.7	0.0	0.2	
21	2.1	-0.1	0.1	
23	2.1	0.0	0.1	
MAX	2.3	0.0	0.4	
MIN	1.7	-0.1	0.0	
AVG	2.0	0.0	0.2	
STD	0.2	0.0	0.1	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025928
Description:	ID# C-A-13 Ground		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
2	2.3	0.0	0.0	
4	2.5	0.0	0.0	
6	2.5	0.0	0.1	
8	2.5	0.0	0.0	
9	2.3	0.0	0.1	
11	2.1	0.0	0.2	
14	1.8	0.0	0.2	
16	2.1	0.0	0.2	
18	2.1	0.0	0.2	
21	1.9	0.0	0.1	
23	2.0	0.0	0.3	
MAX	2.5	0.0	0.3	
MIN	1.8	0.0	0.0	
AVG	2.2	0.0	0.1	
STD	0.2	0.0	0.1	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

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Low Level Circuit Resistance - Delta Values

Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025929
Description:	ID# C-A-14 Ground		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
2	2.0	0.0	0.0	
4	2.2	0.0	0.0	
6	2.1	0.0	0.0	
8	2.5	0.0	0.0	
9	2.0	0.1	0.0	
11	2.1	0.0	-0.1	
14	2.2	0.0	0.0	
16	2.1	0.0	0.0	
18	2.1	0.0	0.0	
21	2.2	0.0	-0.1	
23	1.8	0.0	0.1	
MAX	2.5	0.1	0.1	
MIN	1.8	0.0	-0.1	
AVG	2.1	0.0	0.0	
STD	0.2	0.0	0.0	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

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Low Level Circuit Resistance - Delta Values				
Project:	210259		Spec:	EIA 364 TP 23
Customer:	Samtec		Subgroup:	Sequence "c"
Product:	IJ7 Connector		File No:	21025930
Description:	ID# C-A-15 Ground		Tech:	MHB
Open circuit voltage:		20mV	Current:	10ma
Units: milliohms				
Temp ºC	23	22	22	
R.H. %	42	47	46	
Date:	04May10	25May10	01Jun10	
Pos. ID	Initial	M.Shock	Vibration	
2	2.2	0.0	0.0	
4	2.1	0.0	0.0	
6	2.1	-0.1	0.0	
8	2.4	0.0	0.0	
9	2.1	0.0	0.0	
11	1.9	0.2	0.0	
14	2.1	0.0	0.0	
16	1.6	0.0	0.0	
18	1.7	0.0	0.0	
21	1.7	0.0	0.0	
23	2.0	0.0	0.1	
MAX	2.4	0.2	0.1	
MIN	1.6	-0.1	0.0	
AVG	2.0	0.0	0.0	
STD	0.3	0.1	0.0	
Open	0	0	0	
Tech	MHB	MHB	MHB	
Equip ID	1276	1276	1276	
	207	207	207	

TEST RESULTS

SEQUENCE D

Group A

PROJECT NO.: 210259 SPECIFICATION: TC0933-2683

PART NO.: IJ7-08-05.0-L-D-1 PART DESCRIPTION: IJ7 connector

SAMPLE SIZE: 3 Samples TECHNICIAN: MHB

START DATE: 5/24/10 COMPLETE DATE: 5/25/10

ROOM AMBIENT: 22°C RELATIVE HUMIDITY: 34%

EQUIPMENT ID#: 34, 200, 585, 1010, 1028, 1147, 1556, 5045

MECHANICAL SHOCK (SPECIFIED PULSE)

PURPOSE:

To determine the mechanical and electrical integrity of connectors for use with electronic equipment subjected to shocks such as those expected from handling, transportation, etc.

PROCEDURE:

1. The test was performed in accordance with EIA 364, Test Procedure 27, Test Condition C.

2. Test Conditions:

   a) Peak Value : 100 G
   b) Duration : 6 milliseconds
   c) Wave Form : Half-Sine
   d) Velocity : 12.3 feet Per Second
   e) No. of Shocks : 3 Shocks/Direction, 3 Axes (18 Total)

3. A stabilizing medium was used such that the mated test samples did not separate during the test.

4. Figure #6 illustrates the test sample fixturing utilized during the test.

5. The samples were characterized to assure that the low nanosecond event being monitored will trigger the detector.

-continued on next page.

PROCEDURE:-continued

6. The low nanosecond monitoring was performed in accordance with EIA 364, Test Procedure 87.

REQUIREMENTS:

1. There shall be no evidence of physical damage to the test samples as tested.
2. There shall be no low nanosecond event detected greater than 50 nanoseconds.

RESULTS:

1. There was no evidence of physical damage to the test samples as tested.
2. There was no low nanosecond event detected greater than 50 nanoseconds.
3. The Mechanical Shock characteristics are shown in Figures #7 (Calibration Pulse) and #8 (Test Pulse). Each figure displays the shock pulse contained within the upper and lower limits as defined by the appropriate test specification.

FIGURE #6

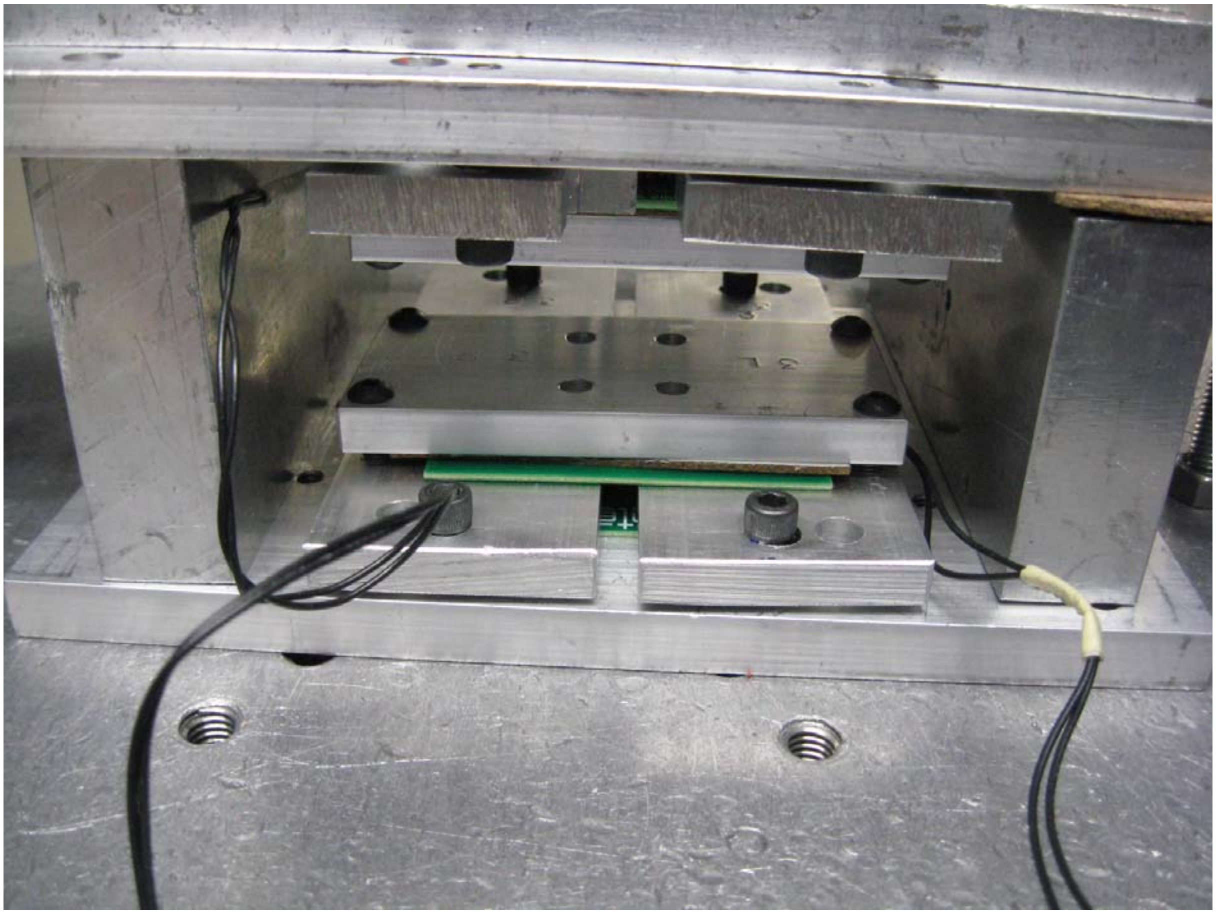


FIGURE #7

Delay 1 to 1 = 6.063 ms V ampl 1 = 1.06 V

Graph [1] 188 mV/div 500 mV 2.00 ms/div -8.000 ms

1: [Mem 1]
210259CAL2

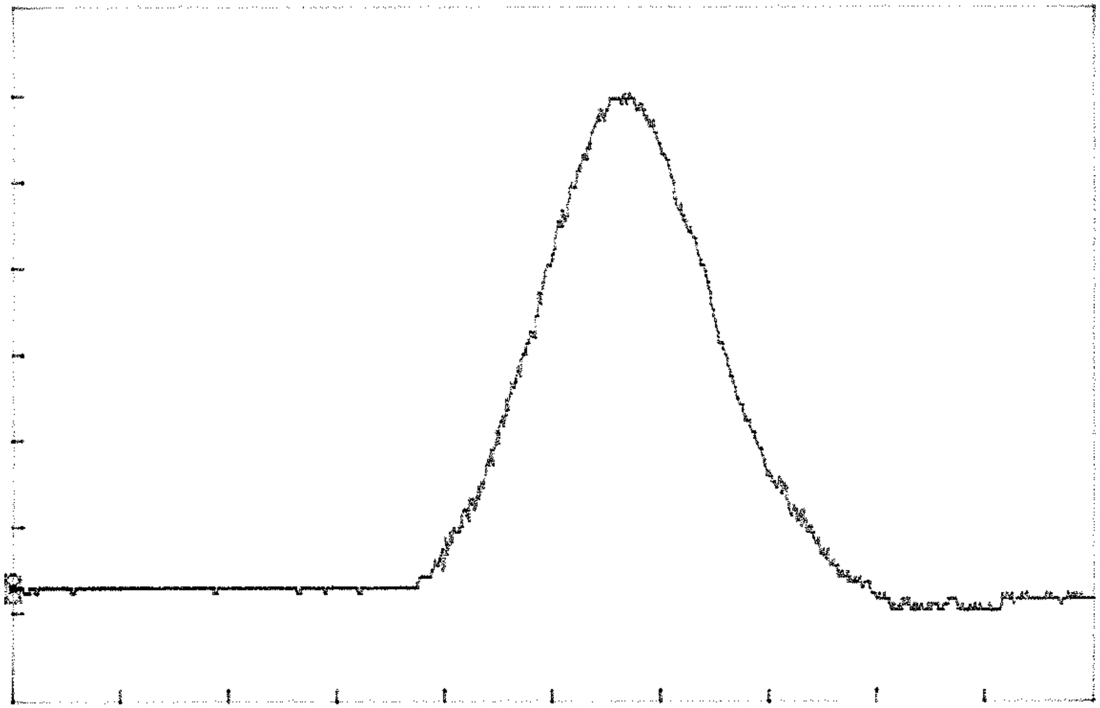
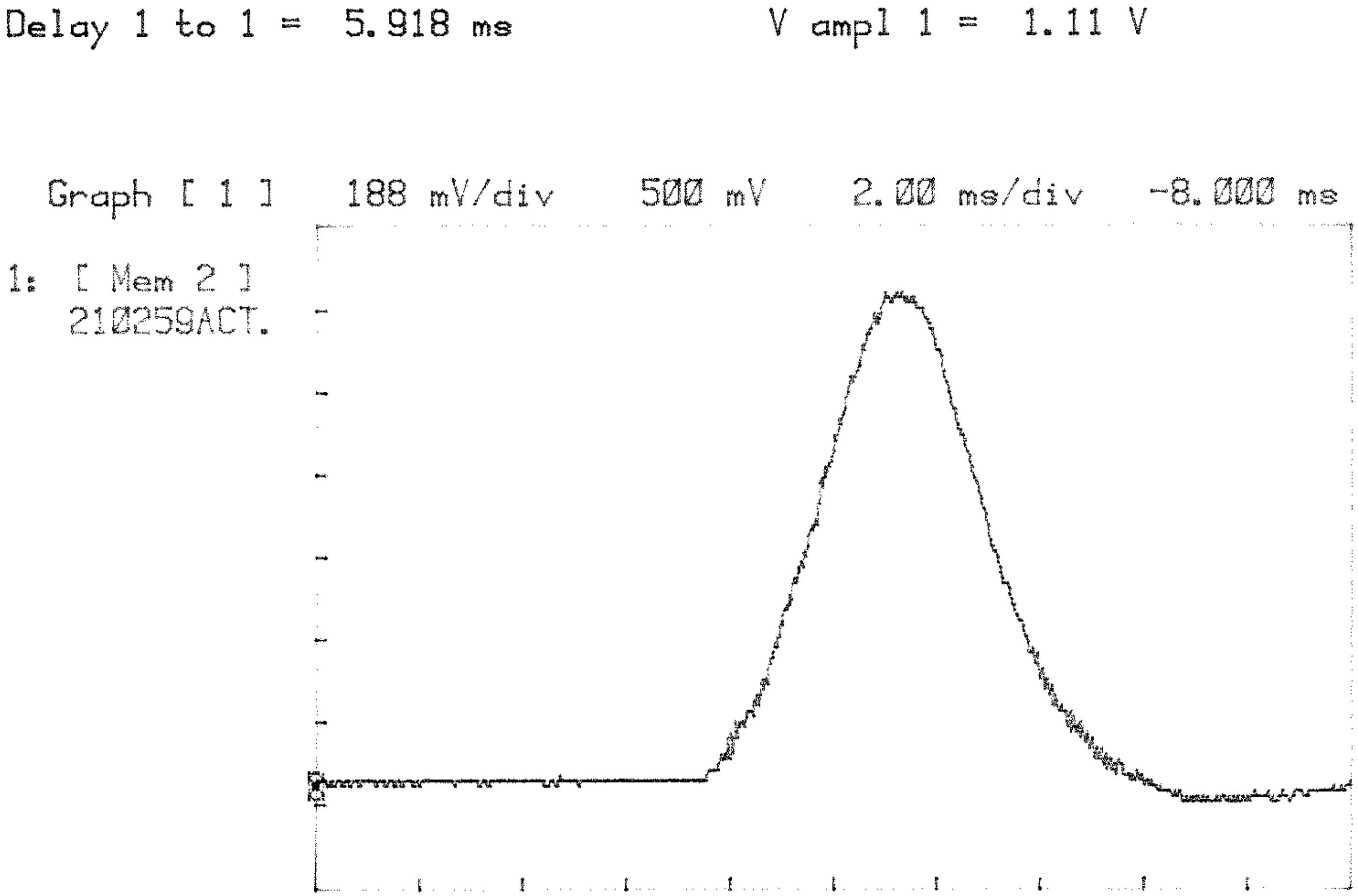


FIGURE #8



Delay 1 to 1 = 5.918 ms   V ampl 1 = 1.11 V

Graph [1]   188 mV/div   500 mV   2.00 ms/div   -8.000 ms

1: [Mem 2]
210259ACT.

PROJECT NO.: 210259 SPECIFICATION: TC0933-2683

PART NO.: IJ7-08-05.0-L-D-1 PART DESCRIPTION: IJ7 connector

SAMPLE SIZE: 3 Samples TECHNICIAN: MHB

START DATE: 5/27/10 COMPLETE DATE: 5/28/10

ROOM AMBIENT: 21°C RELATIVE HUMIDITY: 47%

EQUIPMENT ID#: 282, 545, 553, 874, 1147, 1366, 1367, 1368, 1474, 1620, 5045

VIBRATION, RANDOM

PURPOSE:

1. To establish the mechanical integrity of the test samples exposed to external mechanical stresses.
2. To determine if the contact system is susceptible to fretting corrosion.
3. To determine if electrical discontinuities at the level specified exist.

PROCEDURE:

1. The test was performed in accordance with Specification EIA 364, Test Procedure 28, Test Condition V, Letter B.
2. Test Conditions:

   a) Power Spectral Density : 0.04 g^2/Hz
   b) G ’rms’ : 7.56
   c) Frequency : 50 to 2000 Hz
   d) Duration : 2.0 hrs per axis, 3 axes total

3. A stabilizing medium was used such that the mated test samples did not separate during the test.
4. Figure #9 illustrates the test sample fixturing utilized during the test.

-continued on next page.

PROCEDURE:-continued

5. Prior to testing, the connectors were characterized to assure that the desired event being monitored was capable of being detected.

6. The low nanosecond event detection was performed in accordance with EIA 364, Test Procedure 87.

REQUIREMENTS:

1. There shall be no evidence of physical damage to the test samples as tested.

2. There shall be no low nanosecond event detected greater than 50 nanoseconds.

RESULTS:

1. There was no evidence of physical damage to the test samples as tested.

2. There was no low nanosecond event detected greater than 50 nanoseconds.

FIGURE #9