

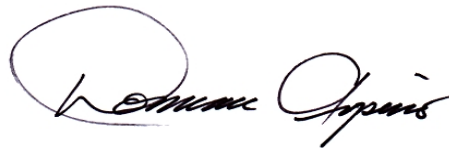
APRIL 5, 2018

TEST REPORT #218012

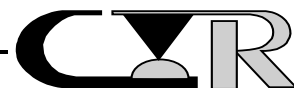
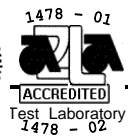
MIXED FLOWING GAS
TESTING

LPAF CONNECTOR SERIES

SAMTEC, INC.



APPROVED BY: DOMINIC ARPINO
PROJECT ENGINEERING MANAGER
CONTECH RESEARCH, INC.
RUMFORD, RI

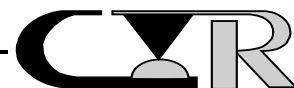
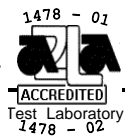


Contech Research

An Independent Test and Research Laboratory

REVISION HISTORY

DATE	REV. NO.	DESCRIPTION	ENG.
4/5/2018	1.0	Initial Issue	DA



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.



Dominic Arpino
Project Engineering Manager
Contech Research, Inc.
Rumford, RI

DA:cf



SCOPE

To perform Mixed Flowing Gas testing on the LPAF connector series 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. 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.

QUANTITY:

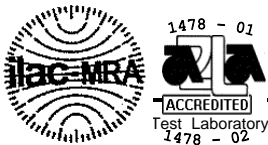
Eight connector pairs for each group, two groups total

DESCRIPTION:

Part # being tested: LPAF-40-03.5-X-08-2-K-TR

Mated Part: LPAM-40-01.0-X-08-2-K-TR

2. Test samples were supplied assembled and terminated to test boards by the test sponsor.
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.



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:

Group 1

<u>Mixed Flowing Gas sequence</u>	<u>File ID#'s</u>
Connector ID#1	21801201
Connector ID#2	21801202
Connector ID#3	21801203
Connector ID#4	21801204
Connector ID#5	21801205
Connector ID#6	21801206
Connector ID#7	21801207
Connector ID#8	21801208

Group 2

<u>Mixed Flowing Gas sequence</u>	<u>File ID#'s</u>
Connector ID#9	21801209
Connector ID#10	21801210
Connector ID#11	21801211
Connector ID#12	21801212
Connector ID#13	21801213
Connector ID#14	21801214
Connector ID#15	21801215
Connector ID#16	21801216

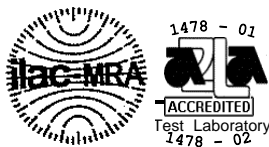
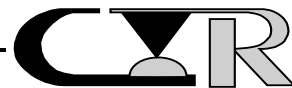
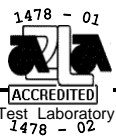
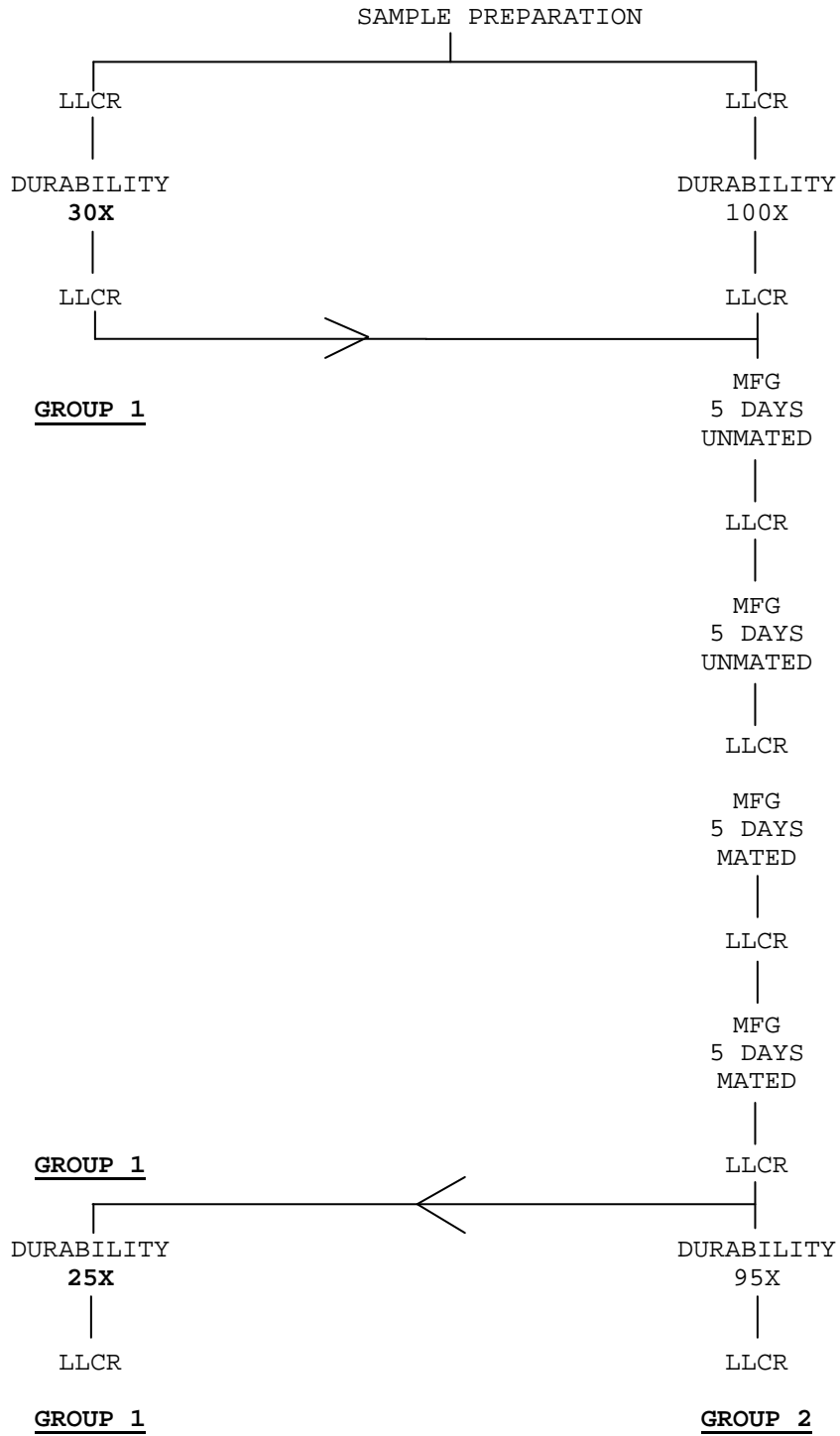


FIGURE #1

TEST PLAN FLOW DIAGRAM

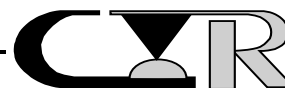


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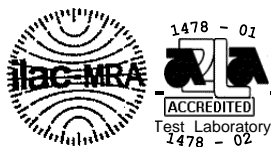
DATA SUMMARY

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
<u>GROUP 1</u>		
LLCR DURABILITY (30X)	RECORD NO DAMAGE	8.9 mΩ MAX. PASSED
LLCR MFG -UNMATED	+10.0 mΩ MAX.CHG. NO DAMAGE	+1.3 mΩ MAX.CHG. CORROSION DETECTED
LLCR MFG -UNMATED	+10.0 mΩ MAX.CHG. NO DAMAGE	+0.8 mΩ MAX.CHG. CORROSION DETECTED
LLCR MFG -MATED	+10.0 mΩ MAX.CHG. NO DAMAGE	+1.4 mΩ MAX.CHG. NO DAMAGE
LLCR MFG -MATED	+10.0 mΩ MAX.CHG. NO DAMAGE	+1.8 mΩ MAX.CHG. NO DAMAGE
LLCR DURABILITY (25X)	+10.0 mΩ MAX.CHG. NO DAMAGE	+1.2 mΩ MAX.CHG. PASSED
LLCR	+10.0 mΩ MAX.CHG.	+1.8 mΩ MAX.CHG.
<u>GROUP 2</u>		
LLCR DURABILITY (100X)	RECORD NO DAMAGE	9.2 mΩ MAX. PASSED
LLCR MFG -UNMATED	+10.0 mΩ MAX.CHG. NO DAMAGE	+1.3 mΩ MAX.CHG. CORROSION DETECTED
LLCR MFG -UNMATED	+10.0 mΩ MAX.CHG. NO DAMAGE	+0.6 mΩ MAX.CHG. CORROSION DETECTED
LLCR MFG -MATED	+10.0 mΩ MAX.CHG. NO DAMAGE	+1.1 mΩ MAX.CHG. NO DAMAGE
LLCR MFG -MATED	+10.0 mΩ MAX.CHG. NO DAMAGE	+1.2 mΩ MAX.CHG. NO DAMAGE
LLCR DURABILITY (95X)	+10.0 mΩ MAX.CHG. NO DAMAGE	+1.6 mΩ MAX.CHG. PASSED
LLCR	+10.0 mΩ MAX.CHG.	+1.8 mΩ MAX.CHG.



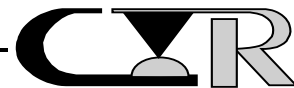
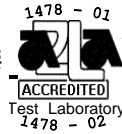
EQUIPMENT LIST

ID#	Next Cal	Last Cal	Equipment Name	Manufacturer	Model #	Serial #	Accuracy	Freq. Cal
280	4/17/2018	4/17/2017	Micro-Ohm Meter	Keithley Instr.	580	477845	See Cal Cert	12 mon
340	N/A	N/A	X-Y Table	NE Affiliated Tech.	XY-6060	N/A	N/A	N/A
552	N/A	N/A	Relay Scanner Card	Keithley Co.	7011-S	0590703	See Manual	Ea Test
563	N/A	N/A	MFG Control Panel	Contech Research	N/A	N/A	N/A	Ea Test
578	N/A	N/A	Thermocouple Multiplex Card	Keithley	7014	A24553	See Manual	Ea Test
1046	N/A	N/A	DC Power Supply 17 Amps	Hewlett Packard	6030A	38320390	See Manual	Ea Test
1377	N/A	N/A	Scanner Main Frame	Keithley	7001	0589700	See Manual	Ea Test
1381	N/A	N/A	Air Dryer	Balston	75-20	A03391	See Manual	N/A
1500	12/28/2018	12/28/2017	Temp Humid Trans	Vaisala	HMT333	CO650008	See Cal Cert	12 mon
1540	N/A	N/A	MFG Chamber	Contech Research	5 CU. FT	N/A	N/A	N/A
1571	N/A	N/A	Chlorine Analyzer	IMS CO.	Air Sentury	1265AN	See Cal Cert	EA Test
1592	11/14/2018	11/14/2017	Digital Multimeter	Hewlett Packard	34401A	36082522	See Cal Cert	12 mon
1599	N/A	N/A	NO2 Analyzer	Teledyne Analyzer	200E	289	N/A	N/A
1689	12/5/2018	12/5/2017	Programable Test Stand	Chatillon	TCD 1000-MS	25010	N/A	12 mon
1777	N/A	N/A	Dual Stage Regulator	Matheson	3810	01413776	N/A	N/A
1778	N/A	N/A	Dual Stage Regulator	Matheson	3810	01432218	N/A	N/A
1779	N/A	N/A	Dual Stage Regulator	Matheson	3810	01464773	N/A	N/A
1780	N/A	N/A	Dual Stage Regulator	Matheson	3810	01448642	N/A	N/A
1793	N/A	N/A	Computer	Dell	Optiplex	CKWCPC1	N/A	N/A
1858	8/31/2018	2/6/2018	Analytical Balance	Mettler Toledo	XPE26	B603020131	See Cal Cert	6 mon
1880	10/10/2018	10/10/2017	H2S Analyzer	Teledyne	T101	450	See Cal Cert	12 mon
1910	N/A	N/A	Computer	Dell	Vostro 421	33825968785	N/A	N/A



TEST RESULTS

GROUP 1
&
GROUP 2



PROJECT NO.: 218012

SPECIFICATION: EIA-364-23

PART NO.: See page 4

PART DESCRIPTION: LPAF Series

SAMPLE SIZE: 16

TECHNICIAN: BE

START DATE: 2/12/18

COMPLETE DATE: 2/14/18

ROOM AMBIENT: 22°C

RELATIVE HUMIDITY: 37%

EQUIPMENT ID#: 280, 1793

LOW LEVEL CIRCUIT RESISTANCE (LLCR)

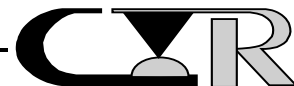
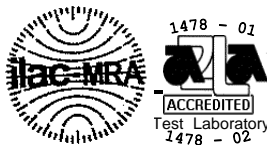
PURPOSE:

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 with the following conditions.

-continued on next page.



PROCEDURE: -continued

2. Test Conditions:

- a) Test Current : 100 milliamps maximum
- b) Open Circuit Voltage : 20 millivolts
- c) No. of Positions Tested : 24 per test 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)

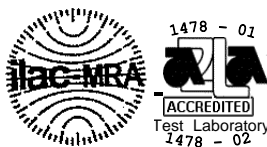
GROUP1

<u>Sample ID#</u>	<u>Avg.</u>	<u>Max.</u>	<u>Min.</u>
1	6.3	7.1	5.3
2	7.0	8.1	6.3
3	6.1	7.9	5.3
4	6.2	7.5	5.3
5	6.7	7.6	5.7
6	5.9	6.8	5.3
7	6.4	8.1	5.4
8	6.5	8.9	5.4

Group 2

<u>Sample ID#</u>	<u>Avg.</u>	<u>Max.</u>	<u>Min.</u>
9	6.6	8.3	5.7
10	6.5	7.9	5.6
11	6.5	9.2	5.2
12	6.4	8.8	5.8
13	6.5	7.9	5.7
14	6.5	7.4	5.5
15	6.2	7.4	5.2
16	6.2	7.6	5.1

2. See data files 21801201 through 21801216 for the individual data points.



PROJECT NO.: 218012

SPECIFICATION: EIA-364 TP 09

PART NO.: See page 4

PART DESCRIPTION: LPAF Series

SAMPLE SIZE: 16

TECHNICIAN: BE

START DATE: 2/13/18

COMPLETE DATE: 2/15/18

ROOM AMBIENT: 21°C

RELATIVE HUMIDITY: 24%

EQUIPMENT ID#: 340, 1689 & fixtures provided by Samtec

DURABILITY

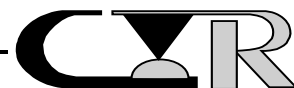
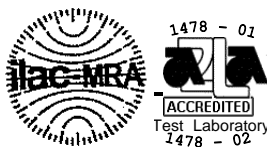
PURPOSE:

1. This is a conditioning sequence which is used to induce the type of wear on the contacting surfaces which may occur under normal service conditions. The connectors are mated and unmated a predetermined number of cycles. Upon completion, the units being evaluated are exposed to the environments as specified to assess any impact on electrical stability resulting from wear or other wear dependent phenomenon.
2. This type of conditioning sequence is also used to mechanically stress the connector system as would normally occur in actual service. This sequence in conjunction with other tests is used to determine if a significant loss of contact pressure occurs from said stresses which in turn, may result in an unstable electrical condition to exist.

PROCEDURE:

1. The test was performed in accordance with EIA 364, Test Procedure 09.
2. Test Conditions:
 - a) No. of Cycles : Group 1, 30 cycles initially
Group 2, 100 cycles initially
3. The durability cycling was performed using an XY Table and a motorized Chatillon.

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PROCEDURE: -continued

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

REQUIREMENTS:

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

RESULTS:

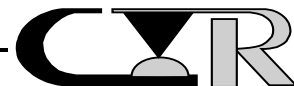
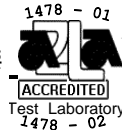
1. There was no evidence of physical damage to the test samples so tested.
2. The following is a summary of the observed data:

CHANGE IN
LOW LEVEL CIRCUIT RESISTANCE
(milliohms)

Group 1 (30X)

<u>Sample ID #</u>	<u>Avg. Change</u>	<u>Max. Change</u>
1	+0.2	+1.3
2	-0.4	+0.9
3	-0.2	+0.3
4	-0.1	+0.5
5	-0.4	+0.9
6	+0.0	+0.3
7	-0.1	+0.7
8	-0.1	+0.7

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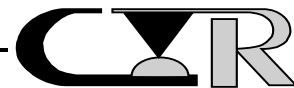
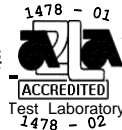
RESULTS: -continued

CHANGE IN
LOW LEVEL CIRCUIT RESISTANCE
(milliohms)

Group 2 (100X)

<u>Sample ID #</u>	<u>Avg. Change</u>	<u>Max. Change</u>
9	-0.5	-0.1
10	-0.4	+0.4
11	-0.3	+1.3
12	-0.2	+0.4
13	-0.8	-0.3
14	-0.4	+0.4
15	-0.3	+0.1
16	+0.0	+0.8

3. See data files 21801201 through 21801216 for the individual data points.



PROJECT NO.: 218012

SPECIFICATION: EIA-364-65B

PART NO.: See page 4

PART DESCRIPTION: LPAF Series

SAMPLE SIZE: 16

TECHNICIAN: DG

START DATE: 2/21/18

COMPLETE DATE: 3/19/18

ROOM AMBIENT: 21°C

RELATIVE HUMIDITY: 24%

EQUIPMENT ID#: 552, 563, 578, 1046, 1377, 1381, 1500, 1540,
1571, 1592, 1599, 1777, 1778, 1779, 1780, 1858,
1880, 1910

MIXED FLOWING GAS

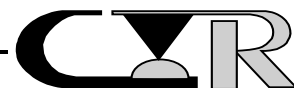
PURPOSE:

1. To determine the impact on electrical stability of contact interfaces when the test samples are exposed to a mixed flowing gas environment. Said environment is based on field data simulating typical, severe, non-benign environments. Said exposure is indicative of expected behavior in the field.
2. Mixed flowing gas tests (MFG) are environmental test procedures whose primary purpose is to evaluate product performance under simulated storage or operating (field) conditions. For parts involving plated contact surfaces, such tests are also used to measure the effect of plating degradation (due to the environment) on the electrical and durability properties of a contact or connector system. The specific test conditions are usually chosen so as to simulate, in the test laboratory, the effects of certain representative field environments or environmental severity levels on standard metallic surfaces.

PROCEDURE:

1. The test environment was performed in accordance with EIA 364, Test Procedure 65, Class IIA with the following conditions.

-continued on next page.



PROCEDURE: -continued

2. Environmental Conditions:

- a) Temperature : 30°C ± 1°C
- b) Relative Humidity : 70% ± 2%
- c) Cl₂ : 10 ± 3 ppb
- d) NO₂ : 200 ± 50 ppb
- e) H₂S : 10 ± 5 ppb
- f) SO₂ : 100 ± 20 ppb
- g) Exposure Time : 20 days
- h) Mating Conditions : Unmated for 10 days,
Mated for 10 days
- i) Mounting Conditions : Mounted

3. The test chamber was allowed to stabilize at the specified conditions indicated.

4. After stabilization, the test samples and control coupons were placed in the chamber such that they were no closer than 2.0" from each other and/or the chamber walls.

5. The test samples were handled in a manner so as not to disturb the contact interface.

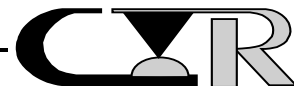
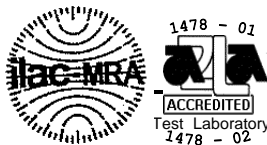
6. After placement of the test samples in the chamber, it was allowed to re-stabilize and adjusted as required to maintain the specified concentrations and conditions.

7. The test chamber was monitored periodically during the exposure period to assure the environmental conditions as specified were maintained.

8. During the exposure, resistance measurements were taken at specific intervals and in the following sequence.

- a) Place the test samples in the test chamber.
- b) At each designated measurement period, remove the test units from the test chamber. The test samples were exposed to room ambient for two hours prior to making measurements.
- c) Measure and record low level circuit resistance measurements.
- d) Upon completion of all of the measurements, place the test units back into the test chamber until the next measurement interval or until completion of the test duration.

-continued on next page.



PROCEDURE: -continued

9. Following the completion of each 5 days of MFG exposure, the samples were subjected to the tests indicated below:

a) LLCR

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

REQUIREMENTS:

1. There shall be no evidence of damage or corrosion to the test samples as exposed which will cause mechanical or electrical malfunction of the said samples.
2. The change in low level circuit resistance shall not exceed +10.0 milliohms.

RESULTS:

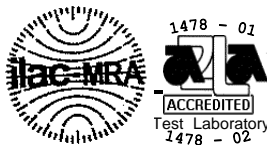
1. There was some evidence of corrosion after the MFG exposure in the unmated condition however the corrosion did not impact the specified requirement.

CHANGE IN
LOW LEVEL CIRCUIT RESISTANCE
(milliohms)

Group 1 Unmated

<u>ID#</u>	<u>5 days Avg. Change</u>	<u>5 days Max. Change</u>	<u>10 days Avg. Change</u>	<u>10 days Max. Change</u>
1	-0.4	+0.6	-0.3	+0.3
2	-0.5	+0.8	-0.6	+0.4
3	-0.5	+0.0	-0.2	+0.5
4	-0.4	+0.0	-0.3	+0.2
5	-0.1	+0.8	+0.1	+0.9
6	-0.1	+0.5	+0.3	+1.4
7	-0.6	-0.1	-0.5	+0.0
8	-0.7	+0.3	-0.7	+0.4

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RESULTS: -continued

CHANGE IN
LOW LEVEL CIRCUIT RESISTANCE
(milliohms)

Group 2 Unmated

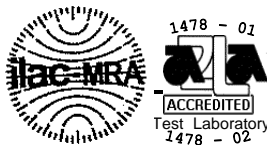
<u>ID#</u>	<u>5 days Avg. Change</u>	<u>5 days Max. Change</u>	<u>10 days Avg. Change</u>	<u>10 days Max. Change</u>
9	-0.6	+0.1	-0.7	+0.2
10	-0.6	+0.1	-0.7	+0.2
11	-0.5	+0.2	-0.6	+0.3
12	-0.6	+0.2	-0.3	+1.1
13	-0.7	-0.1	-0.5	+0.2
14	-0.6	+0.1	-0.3	+0.8
15	-0.5	+0.0	-0.5	+0.0
16	-0.3	+0.6	-0.2	+0.9

CHANGE IN
LOW LEVEL CIRCUIT RESISTANCE
(milliohms)

Group 1 Mated

<u>ID#</u>	<u>5 days Avg. Change</u>	<u>5 days Max. Change</u>	<u>10 days Avg. Change</u>	<u>10 days Max. Change</u>
1	-0.4	+0.1	-0.2	+0.5
2	-0.1	-0.3	-0.9	+0.1
3	-0.4	+0.2	-0.4	+0.6
4	-0.4	+0.3	-0.3	+0.8
5	-0.7	-0.1	-0.6	-0.1
6	+0.1	+1.8	+0.0	+1.2
7	-0.6	+0.0	-0.5	+0.6
8	-0.8	+0.5	-0.8	+0.3

-continued on next page.



RESULTS: -continued

CHANGE IN
LOW LEVEL CIRCUIT RESISTANCE
(milliohms)

Group 2 Mated

<u>ID#</u>	<u>5 days Avg. Change</u>	<u>5 days Max. Change</u>	<u>10 days Avg. Change</u>	<u>10 days Max. Change</u>
9	-0.8	+0.0	-0.8	+0.4
10	-0.7	+0.2	-0.7	+0.4
11	-0.6	+0.4	-0.6	+0.4
12	-0.4	+1.2	-0.3	+1.6
13	-0.6	+0.0	-0.2	+0.8
14	-0.4	+0.7	-0.4	+0.7
15	-0.6	+0.0	-0.3	+0.4
16	-0.3	+0.6	-0.1	+1.5

3. See data file 21801201 and 21801216 for the individual data points.
4. Five copper coupons were placed in the chamber for each of the exposure durations. Upon removal said coupons were evaluated via weight gain technique with the following results:

WEIGHT GAIN ($\mu\text{gm}/\text{cm}^2/\text{Day}$)

<u>Coupon No.</u>	<u>Set 1</u>	<u>Set 2</u>	<u>Set 3</u>	<u>Set 4</u>
1	13	12	13+	15+
2	14	12	14	15+
3	14+	12	14+	15+
4	14	13+	15+	15+
5	16	13	16	16

Requirement: 12 to 16 $\mu\text{gm}/\text{cm}^2/\text{Day}$

5. Figure #'s 1 through 4 shows the test samples inside the chamber during the Mixed Flowing Gas exposure.

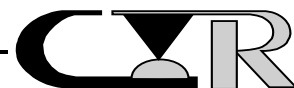
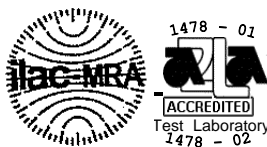


FIGURE #2

UNMATED TEST SAMPLES EXPOSED INSIDE THE MFG
CHAMBER

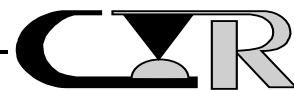
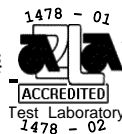
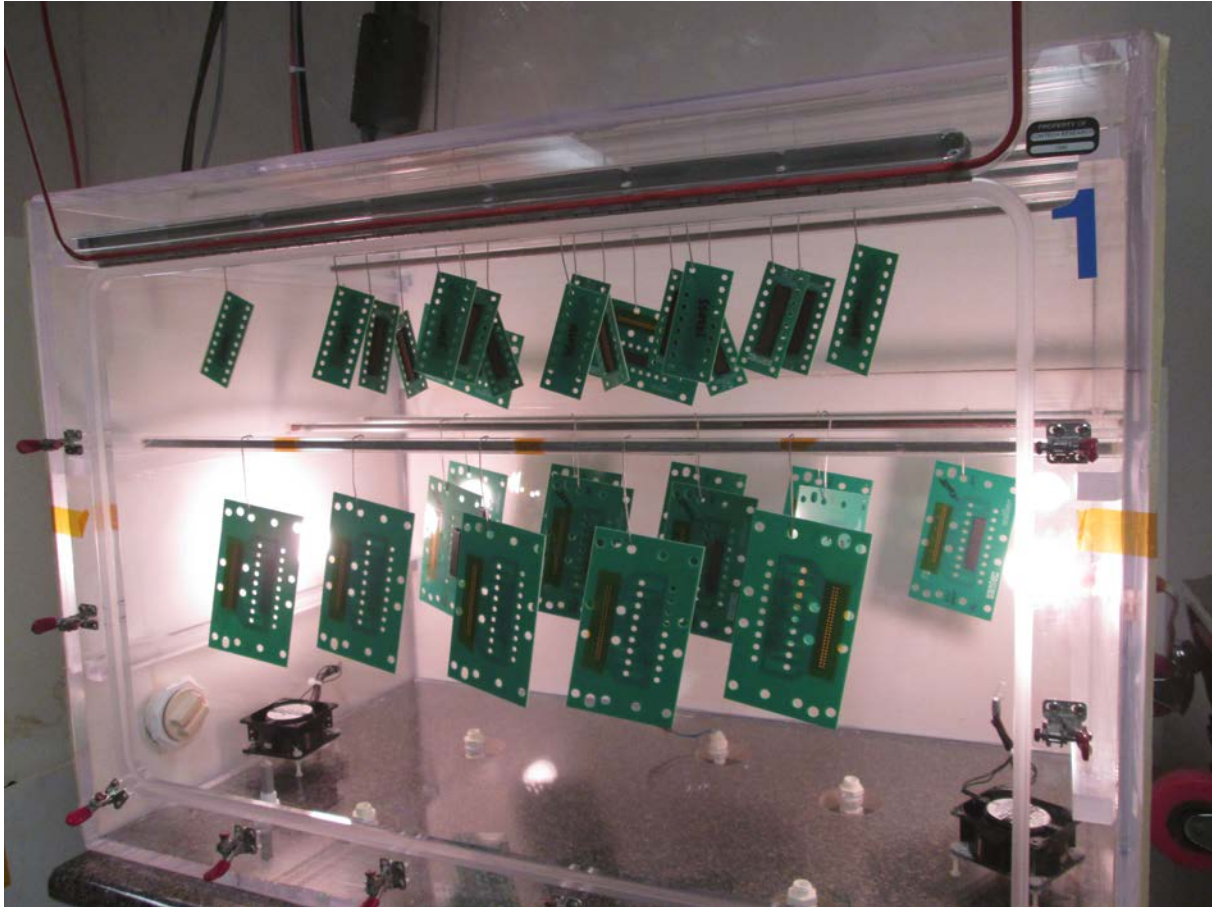


FIGURE #3

UNMATED TEST SAMPLES EXPOSED INSIDE THE MFG CHAMBER

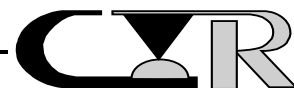
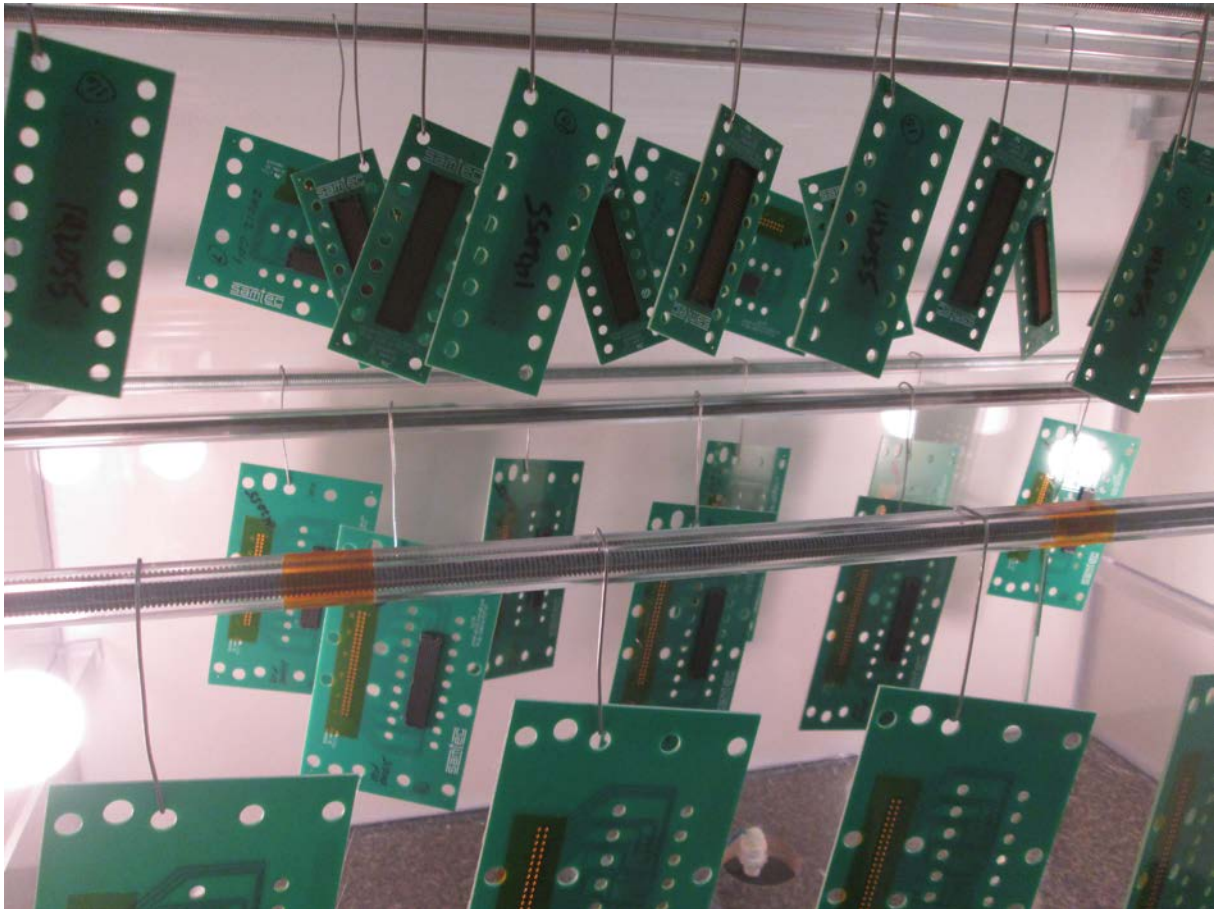
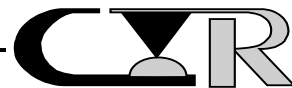
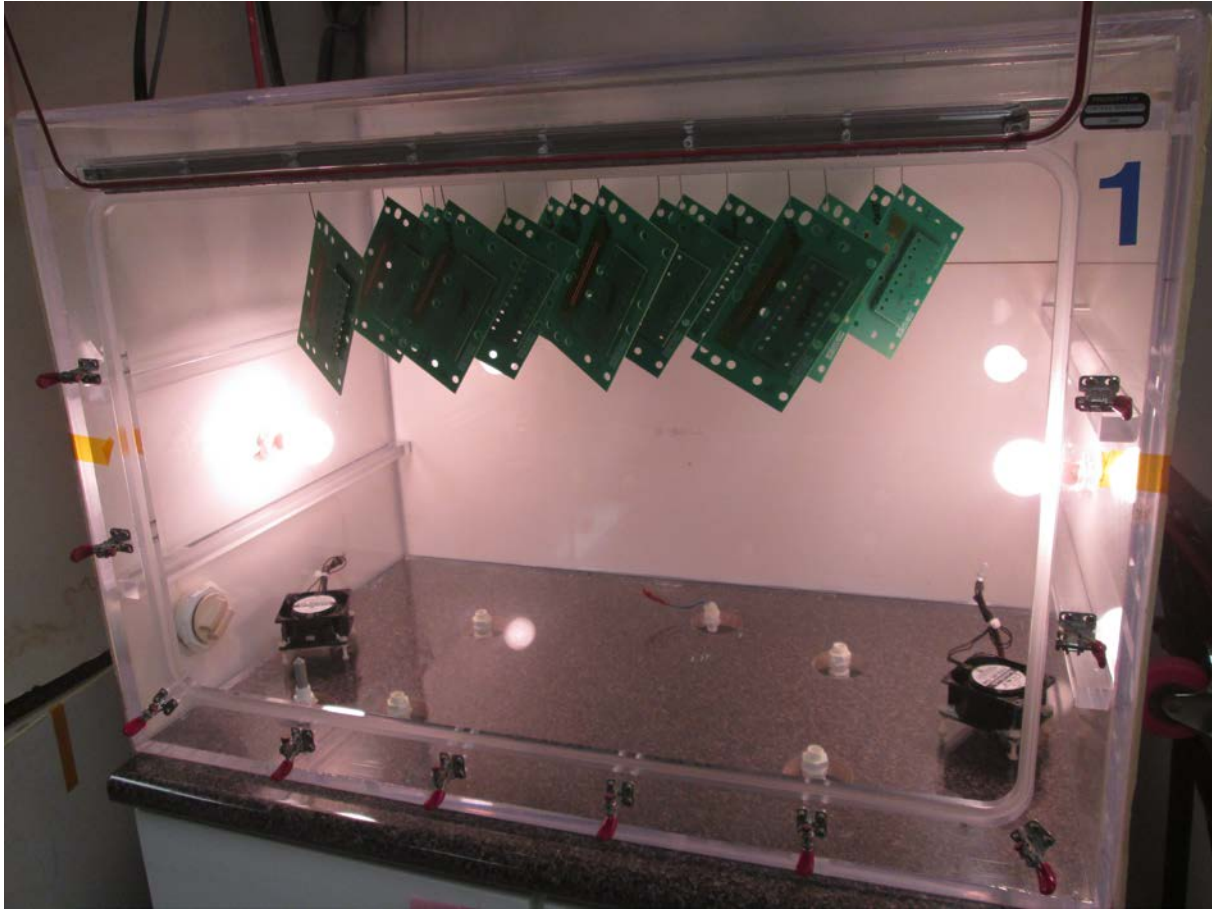


FIGURE #4

UNMATED TEST SAMPLES EXPOSED INSIDE THE MFG CHAMBER



PROJECT NO.: 218012

SPECIFICATION: EIA-364 TP 09

PART NO.: See page 4

PART DESCRIPTION: LPAF Series

SAMPLE SIZE: 16

TECHNICIAN: BE

START DATE: 3/21/18

COMPLETE DATE: 3/225/18

ROOM AMBIENT: 21°C

RELATIVE HUMIDITY: 25%

EQUIPMENT ID#: 340, 1689 & fixtures provided by Samtec

DURABILITY

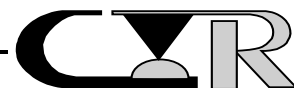
PURPOSE:

1. This is a conditioning sequence which is used to induce the type of wear on the contacting surfaces which may occur under normal service conditions. The connectors are mated and unmated a predetermined number of cycles. Upon completion, the units being evaluated are exposed to the environments as specified to assess any impact on electrical stability resulting from wear or other wear dependent phenomenon.
2. This type of conditioning sequence is also used to mechanically stress the connector system as would normally occur in actual service. This sequence in conjunction with other tests is used to determine if a significant loss of contact pressure occurs from said stresses which in turn, may result in an unstable electrical condition to exist.

PROCEDURE:

1. The test was performed in accordance with EIA 364, Test Procedure 09.
2. Test Conditions:
 - a) No. of Cycles : Group 1, 25 cycles initially
Group 2, 95 cycles initially
3. The durability cycling was performed using an XY Table and a motorized Chatillon.

-continued on next page.



PROCEDURE: -continued

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

REQUIREMENTS:

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

RESULTS:

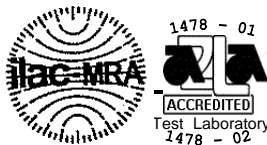
1. There was no evidence of physical damage to the test samples so tested.
2. The following is a summary of the observed data:

CHANGE IN
LOW LEVEL CIRCUIT RESISTANCE
(milliohms)

Group 1 (25X)

<u>Sample ID #</u>	<u>Avg. Change</u>	<u>Max. Change</u>
1	-0.1	+0.8
2	-0.4	+1.0
3	-0.2	+0.4
4	-0.1	+1.2
5	-0.1	+1.8
6	+0.0	+0.5
7	-0.5	+0.1
8	-0.5	+1.8

-continued on next page.



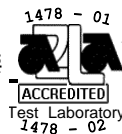
RESULTS: -continued

CHANGE IN
LOW LEVEL CIRCUIT RESISTANCE
(milliohms)

Group 2 (95X)

<u>Sample ID #</u>	<u>Avg. Change</u>	<u>Max. Change</u>
9	-0.6	+0.3
10	-0.4	+0.4
11	-0.7	+0.1
12	-0.4	+1.8
13	-0.8	+0.1
14	-0.5	+0.4
15	-0.2	+0.4
16	-0.2	+0.7

3. See data files 21801201 through 21801216 for the individual data points.



LLCR DATA FILES

FILE NUMBERS

Group 1

21801201

21801202

21801203

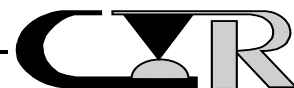
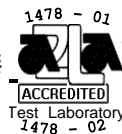
21801204

21801205

21801206

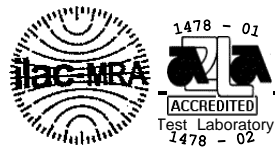
21801207

21801208



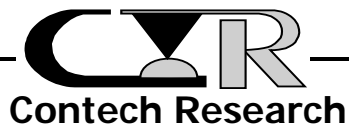
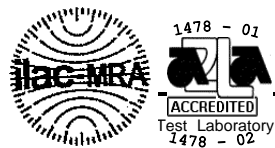
Low Level Contact Resistance - Delta Values

Project:	218012					Spec:	EIA 364 TP 23
Customer:	Samtec					Subgroup:	Group 1 Bd 1
Product:	LPAF-40-03.5-S-08-2-K-TR / LPAM-40-01.0-S-08-K-TR					File No.:	21801201
Description:	MFG Sequence					Tech:	BE
Open Circuit Voltage:	20mV					Current:	100mA
Units:	milliohms						
Temp °C	22°C	21°C	21°C	21°C	21°C	21°C	21°C
R.H. %	37%	24%	28%	27%	23%	20%	25%
Date:	12-Feb-2018	14-Feb-2018	27-Feb-2018	05-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	30X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	25X
			Unmated	Unmated	Mated	Mated	
1	7.1	0.0	-1.0	-0.9	-1.2	-1.2	-1.1
2	5.8	0.4	-0.5	-0.5	-0.6	-0.6	-0.1
3	5.8	1.1	-0.5	-0.3	-0.4	0.1	-0.2
4	6.3	0.9	-0.8	-0.8	-0.9	-0.7	-0.5
5	5.3	0.9	-0.2	-0.3	-0.3	0.0	-0.3
6	6.5	0.6	-0.4	0.1	0.0	0.0	0.0
7	6.3	1.3	-0.4	-0.1	-0.2	0.1	-0.5
8	6.6	0.5	-0.5	0.3	0.1	0.1	-0.4
9	6.0	0.1	-0.5	-0.3	-0.4	-0.4	-0.1
10	7.1	-0.1	-0.9	-0.2	-0.4	-0.3	-0.2
11	5.9	0.0	-0.4	-0.1	-0.2	-0.1	0.1
12	5.8	-0.2	-0.7	-0.6	-0.7	-0.7	-0.4
13	6.3	0.1	-0.4	-0.1	-0.2	-0.2	0.5
14	6.5	0.1	-0.8	-0.8	-0.9	-0.9	-0.9
15	6.6	0.1	-0.4	-0.2	-0.4	-0.4	0.6



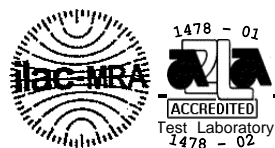
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						File No.:	21801201
Temp °C	22°C	21°C	21°C	21°C	21°C	21°C	21°C
R.H. %	37%	24%	28%	27%	23%	20%	25%
Date:	12-Feb-2018	14-Feb-2018	27-Feb-2018	05-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	30X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	25X
			Unmated	Unmated	Mated	Mated	
16	6.3	0.1	-0.5	-0.6	-0.6	-0.6	-0.2
17	6.0	0.1	-0.4	-0.2	-0.3	0.0	0.1
18	6.2	-0.1	-0.5	-0.4	-0.5	-0.4	-0.2
19	6.1	0.1	-0.2	-0.3	-0.3	0.2	-0.3
20	6.0	-0.1	-0.3	-0.3	-0.3	0.5	0.3
21	6.4	-0.1	-0.5	-0.5	-0.5	-0.2	-0.1
22	6.3	-0.1	-0.2	0.0	-0.3	0.1	0.8
23	6.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.3
24	6.6	-0.3	0.6	-0.3	0.0	0.4	0.7
MAX	7.1	1.3	0.6	0.3	0.1	0.5	0.8
MIN	5.3	-0.4	-1.0	-0.9	-1.2	-1.2	-1.1
AVG	6.3	0.2	-0.4	-0.3	-0.4	-0.2	-0.1
STD	0.4	0.5	0.3	0.3	0.3	0.4	0.4
Open	0	0	0	0	0	0	0
Tech:	BE	BE	BE	BE	BE	BE	BE
EQUIP. ID	280	280	280	280	280	280	280
	1793	1793	1793	1793	1793	1793	1793



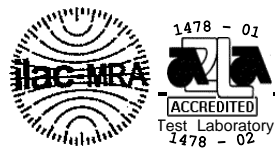
Low Level Contact Resistance - Delta Values

Project:	218012					Spec:	EIA 364 TP 23
Customer:	Samtec					Subgroup:	Group 1 Bd 2
Product:	LPAF-40-03.5-S-08-2-K-TR / LPAM-40-01.0-S-08-K-TR					File No.:	21801202
Description:	MFG Sequence					Tech:	BE
Open Circuit Voltage:	20mV					Current:	100mA
Units:	milliohms						
Temp °C	22°C	21°C	21°C	21°C	21°C	21°C	21°C
R.H. %	37%	24%	28%	27%	23%	20%	25%
Date:	12-Feb-2018	14-Feb-2018	27-Feb-2018	05-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	30X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	25X
			Unmated	Unmated	Mated	Mated	
1	7.5	-0.8	-0.4	-0.7	-0.9	-1.1	-0.8
2	6.4	0.1	-0.1	-0.4	-0.7	-0.7	-0.4
3	6.4	-0.8	-0.7	-0.6	-0.8	-0.7	-0.5
4	6.9	-0.9	-0.9	-0.8	-1.1	-0.9	-0.7
5	6.4	-1.0	-1.0	-1.0	-1.1	-0.9	-0.9
6	7.5	-1.4	-1.0	-0.4	-1.2	-1.0	-0.6
7	6.9	-1.2	-1.1	-1.2	-1.3	-1.1	-1.2
8	7.6	-0.3	-1.1	-1.4	-1.7	-1.6	-1.2
9	7.6	-0.5	-1.1	-0.9	-1.5	-1.5	-1.0
10	7.7	0.1	-0.8	-0.5	-1.0	-1.0	-0.3
11	6.7	0.1	-0.6	-0.6	-0.9	-0.8	-0.6
12	6.3	-0.4	-0.3	-0.4	-0.6	-0.6	-0.3
13	7.6	-0.5	-0.2	-0.7	-1.2	-1.2	-0.4
14	6.7	0.2	-0.6	-0.5	-0.7	-0.8	-0.5
15	8.1	0.1	0.8	0.0	-0.9	-1.1	0.9



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						File No.:	21801202
Temp °C	22°C	21°C	21°C	21°C	21°C	21°C	21°C
R.H. %	37%	24%	28%	27%	23%	20%	25%
Date:	12-Feb-2018	14-Feb-2018	27-Feb-2018	05-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	30X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	25X
			Unmated	Unmated	Mated	Mated	
16	7.0	-0.5	-0.6	-0.8	-1.2	-1.2	-0.7
17	6.8	0.0	-0.4	-0.6	-1.0	-1.0	-0.6
18	6.7	-0.3	-0.6	-0.8	-1.0	-0.9	-0.7
19	6.8	-0.3	-0.2	-0.5	-0.7	-0.5	-0.6
20	7.2	-0.7	-0.5	0.4	-0.4	0.1	-0.1
21	6.7	-0.8	-0.4	-0.7	-1.0	-0.7	0.0
22	7.0	0.9	0.1	0.0	-0.5	-0.3	1.0
23	7.3	-0.4	-0.8	-1.1	-1.4	-0.9	-0.9
24	6.3	-0.3	0.0	0.0	-0.3	-0.1	0.2
MAX	8.1	0.9	0.8	0.4	-0.3	0.1	1.0
MIN	6.3	-1.4	-1.1	-1.4	-1.7	-1.6	-1.2
AVG	7.0	-0.4	-0.5	-0.6	-1.0	-0.9	-0.4
STD	0.5	0.5	0.5	0.4	0.3	0.4	0.5
Open	0	0	0	0	0	0	0
Tech:	BE	BE	BE	BE	BE	BE	BE
EQUIP. ID	280	280	280	280	280	280	280
	1793	1793	1793	1793	1793	1793	1793



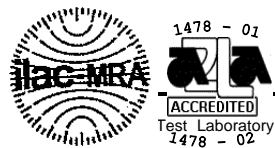
Low Level Contact Resistance - Delta Values

Project:	218012					Spec:	EIA 364 TP 23
Customer:	Samtec					Subgroup:	Group 1 Bd 3
Product:	LPAF-40-03.5-S-08-2-K-TR / LPAM-40-01.0-S-08-K-TR					File No.:	21801203
Description:	MFG Sequence					Tech:	BE
Open Circuit Voltage:	20mV					Current:	100mA
Units:	milliohms						
Temp °C	22°C	21°C	21°C	21°C	21°C	21°C	21°C
R.H. %	37%	24%	28%	27%	23%	20%	25%
Date:	12-Feb-2018	14-Feb-2018	27-Feb-2018	05-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	30X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	25X
			Unmated	Unmated	Mated	Mated	
1	6.0	-0.6	-0.6	-0.4	-0.5	-0.5	-0.4
2	5.8	-0.3	-0.6	-0.5	-0.7	-0.7	-0.4
3	5.8	-0.2	-0.3	0.0	-0.2	-0.2	-0.2
4	5.3	-0.2	-0.2	-0.1	-0.1	-0.1	0.0
5	5.4	-0.1	-0.2	0.0	0.1	0.1	-0.2
6	6.8	0.3	-0.5	-0.3	-0.5	-0.5	0.4
7	5.8	-0.1	-0.1	0.5	0.2	0.6	0.1
8	6.1	0.1	-0.2	0.1	0.0	0.1	-0.2
9	6.0	-0.5	-0.5	-0.5	-0.6	-0.6	-0.5
10	6.2	0.2	-0.5	0.0	-0.2	-0.2	-0.5
11	6.4	-0.4	-0.6	-0.4	-0.6	-0.5	-0.5
12	6.2	-0.6	-0.6	-0.4	-0.6	-0.6	-0.3
13	7.9	-1.0	-2.1	-2.0	-2.1	-2.1	-1.8
14	5.8	-0.5	-0.6	-0.3	-0.4	-0.4	-0.2
15	6.0	-0.3	-0.5	0.0	-0.2	-0.2	-0.1



An Independent Test and Research Laboratory

						File No.:	21801203
Temp °C	22°C	21°C	21°C	21°C	21°C	21°C	21°C
R.H. %	37%	24%	28%	27%	23%	20%	25%
Date:	12-Feb-2018	14-Feb-2018	27-Feb-2018	05-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	30X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	25X
			Unmated	Unmated	Mated	Mated	
16	6.2	-0.3	-0.7	-0.4	-0.7	-0.7	-0.7
17	7.0	-0.5	-1.1	-0.6	-1.0	-1.0	0.1
18	6.1	-0.4	-0.5	0.0	-0.3	-0.3	0.0
19	6.0	0.0	-0.3	0.0	-0.1	0.0	0.0
20	6.2	0.0	-0.6	-0.3	-0.4	-0.3	-0.1
21	6.2	-0.1	-0.4	-0.2	-0.4	-0.4	-0.2
22	6.1	0.0	0.0	0.3	-0.2	-0.2	0.0
23	6.0	-0.2	-0.4	-0.1	-0.4	-0.1	-0.1
24	6.1	-0.1	-0.3	-0.1	-0.1	0.4	0.0
MAX	7.9	0.3	0.0	0.5	0.2	0.6	0.4
MIN	5.3	-1.0	-2.1	-2.0	-2.1	-2.1	-1.8
AVG	6.1	-0.2	-0.5	-0.2	-0.4	-0.4	-0.2
STD	0.5	0.3	0.4	0.5	0.5	0.5	0.4
Open	0	0	0	0	0	0	0
Tech:	BE	BE	BE	BE	BE	BE	BE
EQUIP. ID	280	280	280	280	280	280	280
	1793	1793	1793	1793	1793	1793	1793



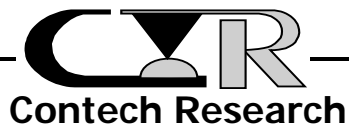
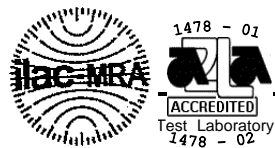
Low Level Contact Resistance - Delta Values

Project:	218012					Spec:	EIA 364 TP 23
Customer:	Samtec					Subgroup:	Group 1 Bd 4
Product:	LPAF-40-03.5-S-08-2-K-TR / LPAM-40-01.0-S-08-K-TR					File No.:	21801204
Description:	MFG Sequence					Tech:	BE
Open Circuit Voltage:	20mV					Current:	100mA
Units:	milliohms						
Temp °C	22°C	21°C	21°C	21°C	21°C	21°C	21°C
R.H. %	37%	24%	28%	27%	23%	20%	25%
Date:	12-Feb-2018	14-Feb-2018	27-Feb-2018	05-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	30X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	25X
			Unmated	Unmated	Mated	Mated	
1	7.5	0.3	-1.0	-1.3	-1.5	-1.5	-0.8
2	5.6	0.0	-0.1	-0.2	-0.3	-0.2	0.1
3	5.3	0.4	0.0	0.2	0.2	0.3	0.2
4	5.5	0.5	0.0	0.1	0.0	0.0	0.3
5	5.3	0.2	0.0	0.2	0.1	0.4	0.1
6	6.6	-0.2	-0.5	-0.5	-0.8	-0.7	-0.1
7	6.0	0.2	0.0	-0.2	-0.2	0.1	-0.3
8	7.0	-1.1	-0.9	-0.6	-0.9	-0.8	-0.8
9	6.1	-0.4	-0.7	-0.6	-0.7	-0.6	-0.4
10	6.6	-1.0	-0.7	-0.4	-0.6	-0.4	-0.6
11	6.3	-0.2	0.0	-0.4	-0.5	-0.4	0.0
12	5.3	-0.1	-0.1	0.1	0.0	0.0	0.1
13	6.7	0.3	-0.5	-0.5	-0.7	-0.7	-0.4
14	6.6	-0.3	-0.9	-0.8	-0.9	-0.8	-0.6
15	6.9	-0.4	-1.0	-0.7	-0.9	-0.8	1.2



An Independent Test and Research Laboratory

						File No.:	21801204
Temp °C	22°C	21°C	21°C	21°C	21°C	21°C	21°C
R.H. %	37%	24%	28%	27%	23%	20%	25%
Date:	12-Feb-2018	14-Feb-2018	27-Feb-2018	05-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	30X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	25X
			Unmated	Unmated	Mated	Mated	
16	6.0	-0.3	-0.6	-0.6	-0.6	-0.6	-0.3
17	6.7	-0.7	-0.9	-0.8	-0.8	-0.8	-0.5
18	6.6	0.3	-0.3	0.0	0.0	-0.2	-0.2
19	6.2	0.0	-0.4	-0.3	-0.3	0.2	-0.2
20	6.6	-0.1	-0.1	0.2	0.3	0.8	0.0
21	5.8	0.3	0.0	0.0	0.1	0.7	0.3
22	6.4	-0.4	-0.5	-0.7	-0.8	-0.7	-0.3
23	5.8	-0.1	-0.2	0.0	0.2	0.1	0.1
24	6.8	0.0	-0.3	-0.2	-0.3	-0.3	-0.4
MAX	7.5	0.5	0.0	0.2	0.3	0.8	1.2
MIN	5.3	-1.1	-1.0	-1.3	-1.5	-1.5	-0.8
AVG	6.2	-0.1	-0.4	-0.3	-0.4	-0.3	-0.1
STD	0.6	0.4	0.4	0.4	0.5	0.6	0.4
Open	0	0	0	0	0	0	0
Tech:	BE	BE	BE	BE	BE	BE	BE
EQUIP. ID	280	280	280	280	280	280	280
	1793	1793	1793	1793	1793	1793	1793

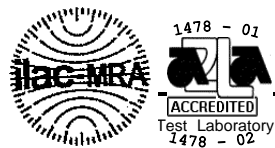


Low Level Contact Resistance - Delta Values

Project:	218012					Spec:	EIA 364 TP 23
Customer:	Samtec					Subgroup:	Group 1 Bd 5
Product:	LPAF-40-03.5-S-08-2-K-TR / LPAM-40-01.0-S-08-K-TR					File No.:	21801205
Description:	MFG Sequence					Tech:	BE
Open Circuit Voltage:	20mV					Current:	100mA
Units:	milliohms						
Temp °C	22°C	21°C	21°C	21°C	21°C	21°C	21°C
R.H. %	37%	24%	28%	27%	23%	20%	25%
Date:	12-Feb-2018	14-Feb-2018	27-Feb-2018	05-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	30X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	25X
			Unmated	Unmated	Mated	Mated	
1	7.2	-1.1	-0.7	0.2	-1.1	-1.2	0.1
2	7.3	-1.3	0.2	0.5	-1.6	-1.6	-0.4
3	5.9	-0.1	0.0	0.2	-0.3	-0.1	-0.1
4	5.8	-0.5	-0.2	-0.1	-0.5	-0.4	-0.2
5	5.7	-0.1	-0.1	-0.1	-0.3	-0.2	-0.1
6	7.2	-0.4	-0.3	-0.1	-0.8	-0.7	-0.4
7	5.7	0.0	-0.2	0.0	-0.2	-0.1	0.0
8	7.2	-0.8	-0.2	0.4	-1.0	-0.8	-0.5
9	7.1	-0.7	0.2	0.6	-1.0	-1.0	-0.2
10	7.0	0.9	0.8	0.9	-0.2	-0.2	1.2
11	6.1	0.1	0.2	0.4	-0.1	-0.1	0.1
12	6.3	-0.5	-0.5	-0.1	-0.6	-0.7	-0.5
13	7.6	-1.2	-1.1	0.9	-1.5	-1.4	-1.0
14	6.7	-0.7	-1.0	-0.1	-0.7	-0.8	-0.9
15	7.1	-0.8	0.0	-0.2	-0.8	-0.8	0.4

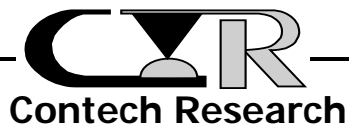
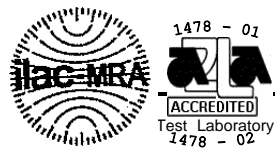


						File No.:	21801205
Temp °C	22°C	21°C	21°C	21°C	21°C	21°C	21°C
R.H. %	37%	24%	28%	27%	23%	20%	25%
Date:	12-Feb-2018	14-Feb-2018	27-Feb-2018	05-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	30X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	25X
			Unmated	Unmated	Mated	Mated	
16	7.1	-0.9	-0.6	-0.3	-1.2	-1.1	-0.4
17	6.7	0.0	0.7	0.4	-0.4	-0.2	0.9
18	6.5	-0.4	-0.1	0.2	-0.4	-0.3	-0.1
19	6.1	-0.2	-0.1	0.0	-0.3	-0.1	-0.2
20	7.1	-0.5	0.3	-0.3	-0.8	-0.5	1.8
21	6.9	-0.7	-0.3	-0.4	-0.6	-0.4	-0.4
22	6.8	-0.3	0.6	0.8	-0.4	-0.2	0.3
23	5.8	0.1	0.1	-0.1	-0.3	-0.1	0.2
24	7.1	0.0	-0.7	-0.8	-0.9	-0.9	-0.8
MAX	7.6	0.9	0.8	0.9	-0.1	-0.1	1.8
MIN	5.7	-1.3	-1.1	-0.8	-1.6	-1.6	-1.0
AVG	6.7	-0.4	-0.1	0.1	-0.7	-0.6	-0.1
STD	0.6	0.5	0.5	0.4	0.4	0.5	0.6
Open	0	0	0	0	0	0	0
Tech:	BE	BE	BE	BE	BE	BE	BE
EQUIP. ID	280	280	280	280	280	280	280
	1793	1793	1793	1793	1793	1793	1793



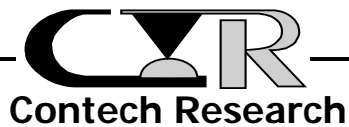
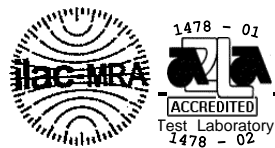
Low Level Contact Resistance - Delta Values

Project:	218012					Spec:	EIA 364 TP 23
Customer:	Samtec					Subgroup:	Group 1 Bd 6
Product:	LPAF-40-03.5-S-08-2-K-TR / LPAM-40-01.0-S-08-K-TR					File No.:	21801206
Description:	MFG Sequence					Tech:	BE
Open Circuit Voltage:	20mV					Current:	100mA
Units:	milliohms						
Temp °C	21°C	21°C	21°C	21°C	21°C	21°C	21°C
R.H. %	23%	24%	28%	27%	23%	20%	25%
Date:	01-Feb-2018	14-Feb-2018	27-Feb-2018	05-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	30X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	25X
			Unmated	Unmated	Mated	Mated	
1	5.8	-0.1	-0.4	0.2	0.0	-0.1	-0.1
2	5.8	0.1	-0.4	-0.2	-0.4	-0.4	-0.2
3	5.5	0.1	0.0	0.2	0.2	0.0	0.2
4	5.3	0.1	0.0	0.1	0.1	-0.1	0.2
5	5.7	0.3	-0.4	-0.3	-0.4	-0.2	-0.2
6	5.9	0.1	-0.4	0.1	0.2	0.5	0.1
7	6.0	0.3	-0.3	-0.1	0.0	0.2	-0.2
8	6.1	0.1	-0.2	0.5	0.3	-0.3	0.1
9	6.2	0.1	-0.6	0.0	-0.3	-0.1	-0.2
10	6.0	0.1	-0.1	0.4	0.3	-0.3	-0.1
11	5.8	0.1	0.5	0.9	0.2	-0.1	-0.2
12	5.4	0.0	0.0	0.1	0.1	0.0	0.5
13	5.8	0.1	0.0	0.5	0.2	0.0	-0.1
14	5.7	-0.1	0.0	0.3	0.0	-0.1	0.3
15	5.6	0.1	0.4	1.1	1.8	1.0	0.2



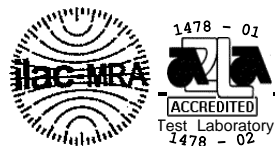
An Independent Test and Research Laboratory

						File No.:	21801206
Temp °C	21°C	21°C	21°C	21°C	21°C	21°C	21°C
R.H. %	23%	24%	28%	27%	23%	20%	25%
Date:	01-Feb-2018	14-Feb-2018	27-Feb-2018	05-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	30X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	25X
			Unmated	Unmated	Mated	Mated	
16	5.7	-0.2	-0.1	0.3	0.4	1.2	0.4
17	5.7	0.1	0.0	0.3	0.1	0.1	0.1
18	6.8	-0.3	-0.3	-0.5	-0.9	-0.5	-0.7
19	6.0	-0.1	-0.2	-0.1	0.1	-0.1	-0.4
20	6.2	0.0	-0.2	0.7	0.5	-0.2	-0.1
21	5.8	-0.1	0.0	0.1	0.0	-0.1	0.0
22	6.5	0.3	0.3	1.4	0.6	-0.3	0.0
23	5.7	0.0	0.0	0.2	0.0	-0.2	0.0
24	6.3	-0.3	-0.2	0.0	0.0	-0.4	-0.3
MAX	6.8	0.3	0.5	1.4	1.8	1.2	0.5
MIN	5.3	-0.3	-0.6	-0.5	-0.9	-0.5	-0.7
AVG	5.9	0.0	-0.1	0.3	0.1	0.0	0.0
STD	0.3	0.2	0.3	0.4	0.5	0.4	0.3
Open	0	0	0	0	0	0	0
Tech:	BE	BE	BE	BE	BE	BE	BE
EQUIP. ID	280	280	280	280	280	280	280
	1793	1793	1793	1793	1793	1793	1793



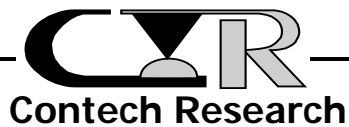
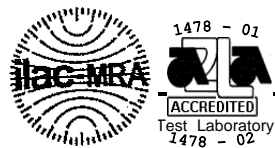
Low Level Contact Resistance - Delta Values

Project:	218012					Spec:	EIA 364 TP 23
Customer:	Samtec					Subgroup:	Group 1 Bd 7
Product:	LPAF-40-03.5-S-08-2-K-TR / LPAM-40-01.0-S-08-K-TR					File No.:	21801207
Description:	MFG Sequence					Tech:	BE
Open Circuit Voltage:	20mV					Current:	100mA
Units:	milliohms						
Temp °C	21°C	21°C	21°C	21°C	21°C	21°C	21°C
R.H. %	23%	24%	28%	27%	23%	20%	25%
Date:	01-Feb-2018	14-Feb-2018	27-Feb-2018	05-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	30X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	25X
			Unmated	Unmated	Mated	Mated	
1	7.0	-0.4	-0.7	-0.8	-0.9	-0.9	-0.8
2	5.7	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3
3	6.0	-0.1	-0.4	-0.4	-0.4	0.0	-0.2
4	5.8	0.1	-0.2	-0.2	-0.3	-0.2	-0.2
5	5.4	0.2	-0.2	0.0	-0.1	0.2	-0.2
6	6.6	0.0	-0.3	-0.4	-0.6	-0.6	-0.2
7	5.7	0.1	-0.2	-0.2	-0.2	0.0	-0.3
8	6.6	0.5	-0.3	-0.1	-0.4	-0.3	-0.6
9	5.8	0.1	-0.4	-0.2	-0.3	-0.3	-0.4
10	6.4	0.7	-0.1	-0.2	-0.3	-0.3	-0.1
11	6.1	0.2	-0.1	-0.2	-0.3	-0.3	-0.3
12	6.2	-0.3	-0.7	-0.6	-0.7	-0.8	-0.6
13	6.6	0.1	-0.6	-0.8	-1.0	-0.9	-0.6
14	6.3	-0.1	-0.5	-0.1	-0.2	-0.3	-0.1
15	6.1	0.6	-0.3	-0.2	-0.2	-0.3	-0.1



An Independent Test and Research Laboratory

						File No.:	21801207
Temp °C	21°C	21°C	21°C	21°C	21°C	21°C	21°C
R.H. %	23%	24%	28%	27%	23%	20%	25%
Date:	01-Feb-2018	14-Feb-2018	27-Feb-2018	05-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	30X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	25X
			Unmated	Unmated	Mated	Mated	
16	6.6	-0.1	-0.9	-0.8	-1.0	-0.9	-1.1
17	8.1	-1.6	-2.1	-2.0	-2.2	-2.1	-2.0
18	6.5	-0.3	-0.8	-0.7	-0.9	-0.8	-0.9
19	6.2	-0.4	-0.7	-0.8	0.0	0.6	0.1
20	6.8	-0.4	-0.5	-0.6	-0.7	-0.6	-0.7
21	6.9	-0.9	-1.1	-1.2	-1.1	-1.0	-1.0
22	6.8	0.1	-0.9	-0.6	-0.9	-0.7	-0.8
23	6.4	-0.3	-1.0	-0.6	-0.7	-0.6	-0.4
24	6.7	-0.2	-0.5	-0.1	-0.2	0.1	-0.2
MAX	8.1	0.7	-0.1	0.0	0.0	0.6	0.1
MIN	5.4	-1.6	-2.1	-2.0	-2.2	-2.1	-2.0
AVG	6.4	-0.1	-0.6	-0.5	-0.6	-0.5	-0.5
STD	0.6	0.5	0.4	0.5	0.5	0.5	0.4
Open	0	0	0	0	0	0	0
Tech:	MHB	BE	BE	BE	BE	BE	BE
EQUIP. ID	1669	280	280	280	280	280	280
	1045	1793	1793	1793	1793	1793	1793



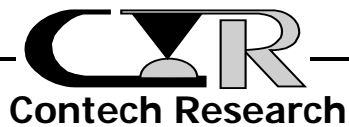
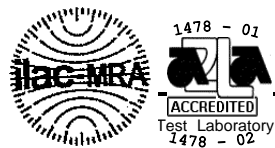
Low Level Contact Resistance - Delta Values

Project:	218012					Spec:	EIA 364 TP 23	
Customer:	Samtec					Subgroup:	Group 1 Bd 8	
Product:	LPAF-40-03.5-S-08-2-K-TR / LPAM-40-01.0-S-08-K-TR					File No.:	21801208	
Description:	MFG Sequence					Tech:	BE	
Open Circuit Voltage:	20mV					Current:	100mA	
Units:	milliohms							
Temp °C	21°C	22°C	21°C	21°C	21°C	21°C	21°C	21°C
R.H. %	23%	22%	24%	28%	27%	23%	20%	25%
Date:	01-Feb-2018	07-Feb-2018	14-Feb-2018	27-Feb-2018	05-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	2nd Set	30X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	25X
				Unmated	Unmated	Mated	Mated	
1	5.9	0.1	-0.3	-0.5	-0.1	-0.2	-0.2	-0.1
2	6.2	0.0	-0.3	-0.8	-0.6	-0.8	-0.7	-0.5
3	6.6	-0.4	-0.5	-0.7	-0.7	-0.8	-0.8	-0.2
4	6.0	-0.4	-0.4	-0.5	-0.4	-0.5	-0.4	-0.1
5	5.9	-0.3	-0.4	-0.6	-0.7	-0.7	-0.8	-0.4
6	7.7	-0.5	-1.0	-1.5	-1.5	-1.6	-1.6	-1.4
7	6.0	-0.4	-0.6	-0.6	-0.4	-0.4	-0.3	1.8
8	7.7	-0.9	0.2	-1.5	-1.2	-1.5	-1.4	-1.3
9	7.6	-0.5	-1.7	-1.8	-1.9	-2.2	-2.2	-1.9
10	8.9	-1.3	-1.1	-1.5	-2.3	-2.8	-2.9	-2.2
11	6.1	-0.2	-0.2	-0.4	-0.4	-0.4	-0.4	-0.4
12	6.3	0.0	0.1	0.0	-0.6	-0.8	-0.8	-0.4
13	6.8	-0.2	0.3	-0.8	-0.8	-1.0	-0.9	-0.8
14	6.0	0.0	-0.1	-0.3	-0.4	-0.4	-0.4	0.1
15	6.8	0.0	-0.4	-0.6	-0.5	-0.7	-0.7	-0.5



An Independent Test and Research Laboratory

						File No.:	21801208	
Temp °C	21°C	22°C	21°C	21°C	21°C	21°C	21°C	21°C
R.H. %	23%	22%	24%	28%	27%	23%	20%	25%
Date:	01-Feb-2018	07-Feb-2018	14-Feb-2018	27-Feb-2018	05-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	2nd Set	30X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	25X
				Unmated	Unmated	Mated	Mated	
16	6.2	-0.1	-0.1	-0.4	-0.3	-0.5	-0.5	-0.3
17	7.3	0.7	-0.2	-1.1	-0.9	-1.3	-1.3	-0.4
18	5.8	0.4	0.1	-0.3	-0.3	-0.5	-0.5	-0.4
19	5.4	0.2	-0.2	-0.2	-0.2	-0.2	-0.1	0.0
20	6.1	0.0	-0.2	-0.3	-0.2	-0.4	-0.4	-0.3
21	6.1	0.0	0.0	0.0	-0.1	-0.3	-0.3	0.0
22	7.2	0.6	-0.1	-1.4	-1.5	-1.6	-1.6	-1.5
23	6.5	-0.3	-0.4	-0.1	-0.6	-0.7	-0.8	-0.5
24	6.1	0.4	0.3	0.3	0.4	0.5	0.3	0.7
MAX	8.9	0.7	0.3	0.3	0.4	0.5	0.3	1.8
MIN	5.4	-1.3	-1.7	-1.8	-2.3	-2.8	-2.9	-2.2
AVG	6.5	-0.1	-0.3	-0.7	-0.7	-0.8	-0.8	-0.5
STD	0.8	0.5	0.5	0.6	0.6	0.7	0.7	0.8
Open	0	0	0	0	0	0	0	0
Tech:	MHB	BE	BE	BE	BE	BE	BE	BE
EQUIP. ID	1669	280	280	280	280	280	2801793	280
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LLCR DATA FILES

FILE NUMBERS

Group 2

21801209

21801210

21801211

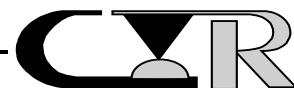
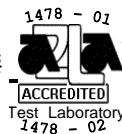
21801212

21801213

21801214

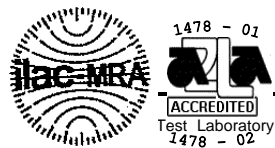
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21801216

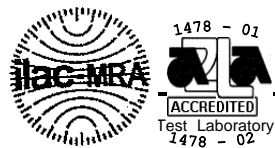


Low Level Contact Resistance - Delta Values

Project:	218012					Spec:	EIA 364 TP 23
Customer:	Samtec					Subgroup:	Group 2 Bd 9
Product:	LPAF-40-03.5-S-08-2-K-TR / LPAM-40-01.0-S-08-K-TR					File No.:	21801209
Description:	MFG Sequence					Tech:	BE
Open Circuit Voltage:	20mV					Current:	100mA
Units:	milliohms						
Temp °C	21°C	21°C	21°C	22°C	21°C	21°C	21°C
R.H. %	24%	24%	28%	25%	23%	20%	25%
Date:	14-Feb-2018	14-Feb-2018	27-Feb-2018	06-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	100X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	95X
			Unmated	Unmated	Mated	Mated	
1	6.3	-0.6	-0.3	-0.6	-0.7	-0.7	-0.7
2	7.3	-0.5	-1.4	-1.6	-1.7	-1.7	-1.4
3	6.8	-0.9	-0.8	-0.9	-1.0	-1.1	-0.2
4	5.9	-0.5	-0.4	-0.6	-0.7	-0.1	-0.4
5	5.7	-0.4	-0.4	-0.5	-0.5	-0.6	-0.2
6	6.3	-0.3	-0.2	-0.3	-0.4	-1.1	-0.2
7	5.9	-0.2	-0.3	-0.3	-0.3	0.1	0.0
8	7.1	-0.6	-0.3	-0.7	-0.9	-1.5	-0.6
9	7.6	-0.5	-1.2	-1.6	-1.7	-1.4	-1.7
10	7.1	-0.7	-0.4	-0.8	-0.9	-1.2	-0.8
11	6.4	-0.5	-0.5	-0.2	-0.4	-0.2	-0.4
12	6.3	-0.6	-0.6	-0.7	-0.7	-0.3	-0.6
13	6.3	-0.4	-0.2	-0.3	-0.4	-0.7	-0.5
14	6.2	-0.6	-0.5	-0.6	-0.6	-0.4	-0.5
15	7.4	-1.1	-1.3	-1.5	-1.6	-1.9	-1.3



						File No.:	21801209
Temp °C	21°C	21°C	21°C	22°C	21°C	21°C	21°C
R.H. %	24%	24%	28%	25%	23%	20%	25%
Date:	14-Feb-2018	14-Feb-2018	27-Feb-2018	06-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	100X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	95X
			Unmated	Unmated	Mated	Mated	
16	6.6	-0.9	-0.7	-0.9	-1.1	-0.9	-1.0
17	6.6	-0.6	-0.4	-0.3	-0.4	-1.0	-0.6
18	6.4	-0.5	-0.6	-0.7	-0.7	-0.3	-0.6
19	6.4	-0.1	-0.5	-0.5	-0.5	-0.8	-0.6
20	7.0	-0.9	-0.9	-0.8	-0.9	-1.1	-0.6
21	6.2	-0.6	-0.7	-0.5	-0.6	-0.1	-0.7
22	8.3	-0.4	-1.1	-1.7	-2.1	-2.8	-0.7
23	5.7	-0.2	-0.3	0.0	-0.2	0.4	-0.1
24	6.2	-0.1	0.1	0.2	0.0	-0.6	0.3
MAX	8.3	-0.1	0.1	0.2	0.0	0.4	0.3
MIN	5.7	-1.1	-1.4	-1.7	-2.1	-2.8	-1.7
AVG	6.6	-0.5	-0.6	-0.7	-0.8	-0.8	-0.6
STD	0.6	0.3	0.4	0.5	0.5	0.7	0.4
Open	0	0	0	0	0	0	0
Tech:	BE	BE	BE	BE	BE	BE	BE
EQUIP. ID	280	280	280	280	280	280	280
	1793	1793	1793	1793	1793	1793	1793

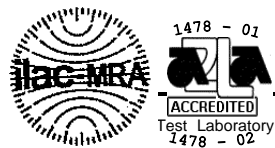


Low Level Contact Resistance - Delta Values

Project:	218012					Spec:	EIA 364 TP 23
Customer:	Samtec					Subgroup:	Group 2 Bd 10
Product:	LPAF-40-03.5-S-08-2-K-TR / LPAM-40-01.0-S-08-K-TR					File No.:	21801210
Description:	MFG Sequence					Tech:	BE
Open Circuit Voltage:	20mV					Current:	100mA
Units:	milliohms						
Temp °C	21°C	21°C	21°C	22°C	21°C	21°C	21°C
R.H. %	23%	24%	28%	25%	23%	20%	25%
Date:	01-Feb-2018	14-Feb-2018	27-Feb-2018	06-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	100X	MFG 5d	MFG 5d	MFg 5d	MFG 5d	95X
			Unmated	Unmated	Mated	Mated	
1	7.5	-0.9	-0.9	-1.8	-1.8	-1.8	-1.0
2	6.0	-0.4	-0.6	-0.6	-0.8	-0.7	-0.1
3	6.7	-0.7	-0.9	-1.0	-0.9	-0.9	-0.7
4	5.7	-0.2	-0.3	-0.2	-0.3	-0.2	0.0
5	5.8	-0.2	-0.4	-0.5	-0.4	-0.4	-0.1
6	6.6	0.0	-0.4	0.1	0.2	0.2	-0.3
7	5.6	0.0	0.1	0.2	0.2	0.4	0.4
8	6.3	0.2	-0.3	-0.4	-0.4	-0.4	-0.1
9	6.4	-0.4	-0.6	-0.4	-0.4	-0.4	0.2
10	6.1	0.4	0.1	0.0	-0.2	-0.1	0.1
11	6.4	-0.1	-0.5	-0.5	-0.7	-0.7	-0.2
12	6.4	0.1	-0.8	-0.9	-1.0	-0.9	-0.5
13	7.2	-0.8	-1.1	-1.1	-1.3	-1.3	-0.8
14	6.4	-0.2	-0.6	-0.7	-0.7	-0.7	-0.1
15	6.8	-0.5	-0.7	-0.7	-0.8	-0.8	-0.2



						File No.:	21801210
Temp °C	21°C	21°C	21°C	22°C	21°C	21°C	21°C
R.H. %	23%	24%	28%	25%	23%	20%	25%
Date:	01-Feb-2018	14-Feb-2018	27-Feb-2018	06-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	100X	MFG 5d	MFG 5d	MFg 5d	MFG 5d	95X
			Unmated	Unmated	Mated	Mated	
16	7.9	-1.3	-2.0	-2.0	-2.1	-2.1	-1.7
17	6.3	-0.2	-0.5	-0.5	-0.7	-0.7	-0.3
18	6.4	-0.6	-0.8	-0.6	-0.7	-0.7	-0.6
19	6.2	-0.4	-0.4	-0.4	-0.4	-0.4	-0.3
20	7.1	-0.7	-1.0	-1.0	-1.3	-1.3	-1.0
21	7.1	-0.9	-0.9	-1.2	-1.4	-1.4	-1.1
22	6.7	-0.2	-0.6	-0.1	-0.3	-0.3	0.4
23	6.6	-0.5	-0.7	-0.8	-0.9	-0.9	-0.7
24	6.6	-0.3	-0.3	-0.5	-0.5	-0.5	-0.3
MAX	7.9	0.4	0.1	0.2	0.2	0.4	0.4
MIN	5.6	-1.3	-2.0	-2.0	-2.1	-2.1	-1.7
AVG	6.5	-0.4	-0.6	-0.7	-0.7	-0.7	-0.4
STD	0.5	0.4	0.4	0.5	0.6	0.6	0.5
Open	0	0	0	0	0	0	0
Tech:	BE	BE	BE	BE	BE	BE	BE
EQUIP. ID	280	280	280	280	280	280	280
	1793	1793	1793	1793	1793	1793	1793



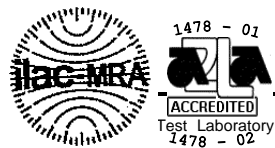
Low Level Contact Resistance - Delta Values

Project:	218012					Spec:	EIA 364 TP 23
Customer:	Samtec					Subgroup:	Group 2 Bd 11
Product:	LPAF-40-03.5-S-08-2-K-TR / LPAM-40-01.0-S-08-K-TR					File No.:	21801211
Description:	MFG Sequence					Tech:	BE
Open Circuit Voltage:	20mV					Current:	100mA
Units:	milliohms						
Temp °C	21°C	21°C	21°C	22°C	21°C	21°C	21°C
R.H. %	23%	30%	28%	25%	23%	20%	25%
Date:	01-Feb-2018	15-Feb-2018	27-Feb-2018	06-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	100X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	95X
			Unmated	Unmated	Mated	Mated	
1	6.4	1.1	-0.3	-0.6	-0.5	-0.5	-0.7
2	6.3	0.4	-0.2	-0.9	-0.7	-0.7	-0.6
3	5.7	0.2	0.2	0.0	0.0	0.0	0.0
4	5.2	1.0	0.0	0.3	0.1	-0.2	0.0
5	5.6	-0.2	0.0	-0.3	0.4	0.4	0.0
6	6.5	-0.6	-0.6	0.3	-0.4	-0.4	-0.5
7	5.9	-0.3	-0.3	-0.2	0.1	0.1	-0.4
8	6.1	-0.2	-0.1	-0.1	-0.1	-0.1	-0.3
9	5.9	1.3	-0.1	0.2	-0.2	-0.2	-0.2
10	6.7	-0.5	-0.5	-0.5	-0.3	-0.4	-0.7
11	6.0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
12	5.7	0.1	-0.1	-0.2	-0.3	-0.3	-0.4
13	9.2	-1.8	-0.9	-3.1	-3.1	-3.1	-1.4
14	5.8	0.1	-0.3	-0.1	-0.1	-0.1	0.1
15	6.8	-0.4	-0.8	-0.6	-1.1	-1.1	-0.9



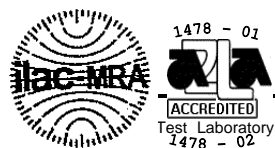
An Independent Test and Research Laboratory

						File No.:	21801211
Temp °C	21°C	21°C	21°C	22°C	21°C	21°C	21°C
R.H. %	23%	30%	28%	25%	23%	20%	25%
Date:	01-Feb-2018	15-Feb-2018	27-Feb-2018	06-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	100X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	95X
			Unmated	Unmated	Mated	Mated	
16	6.7	-0.8	-0.8	-0.7	-0.9	-1.0	-0.9
17	6.0	-0.1	-0.2	-0.2	-0.4	-0.4	-0.3
18	6.2	-0.3	-0.5	-0.3	-0.7	-0.7	-0.4
19	6.6	-0.1	-0.6	-0.9	-0.4	-0.3	-0.9
20	9.1	-2.7	-2.5	-3.0	-2.8	-2.9	-3.1
21	7.3	-1.1	-1.3	-1.4	-1.6	-1.6	-1.5
22	7.6	-1.0	-1.1	-1.1	-1.1	-1.1	-1.2
23	6.4	-0.7	-0.8	-0.5	-0.6	-0.6	-0.9
24	6.5	-0.4	-0.4	-0.4	-0.1	-0.1	-0.6
MAX	9.2	1.3	0.2	0.3	0.4	0.4	0.1
MIN	5.2	-2.7	-2.5	-3.1	-3.1	-3.1	-3.1
AVG	6.5	-0.3	-0.5	-0.6	-0.6	-0.6	-0.7
STD	1.0	0.9	0.6	0.9	0.8	0.8	0.7
Open	0	0	0	0	0	0	0
Tech:	BE	BE	BE	BE	BE	BE	BE
EQUIP. ID	280	280	280	280	280	280	280
	1793	1793	1793	1793	1793	1793	1793



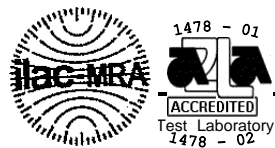
Low Level Contact Resistance - Delta Values

Project:	218012					Spec:	EIA 364 TP 23
Customer:	Samtec					Subgroup:	Group 2 Bd 12
Product:	LPAF-40-03.5-S-08-2-K-TR / LPAM-40-01.0-S-08-K-TR					File No.:	21801212
Description:	MFG Sequence					Tech:	BE
Open Circuit Voltage:	20mV					Current:	100mA
Units:	milliohms						
Temp °C	21°C	21°C	21°C	22°C	21°C	21°C	21°C
R.H. %	23%	30%	28%	25%	23%	20%	25%
Date:	01-Feb-2018	15-Feb-2018	27-Feb-2018	06-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	100X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	95X
			Unmated	Unmated	Mated	Mated	
1	6.0	-0.1	-0.5	-0.6	-0.8	-0.6	-0.5
2	6.3	-0.6	-0.7	-0.2	-0.4	-0.4	-0.6
3	5.9	0.2	0.2	0.7	0.4	0.8	0.3
4	6.3	-0.3	-0.4	-0.6	-0.6	-0.6	-0.7
5	6.0	-0.1	-0.3	-0.3	-0.4	-0.4	-0.5
6	7.0	-0.6	-1.2	-0.7	-0.8	-0.8	-1.2
7	5.8	-0.2	-0.1	0.3	0.3	0.4	-0.2
8	6.5	0.4	-0.5	-0.5	-0.6	-0.6	-0.8
9	8.8	-1.6	-2.5	-2.2	-2.3	-2.4	-2.7
10	6.1	-0.1	-0.3	0.3	0.2	0.2	-0.3
11	6.1	0.1	-0.2	-0.1	-0.3	-0.1	-0.6
12	6.0	0.2	-0.2	-0.2	-0.3	-0.3	0.2
13	6.2	-0.1	-0.2	1.1	0.9	0.9	0.0
14	6.1	-0.1	-0.3	-0.2	-0.3	-0.3	-0.3
15	6.1	-0.3	-0.5	-0.3	-0.4	-0.5	-0.4



An Independent Test and Research Laboratory

						File No.:	21801212
Temp °C	21°C	21°C	21°C	22°C	21°C	21°C	21°C
R.H. %	23%	30%	28%	25%	23%	20%	25%
Date:	01-Feb-2018	15-Feb-2018	27-Feb-2018	06-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	100X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	95X
			Unmated	Unmated	Mated	Mated	
16	6.3	-0.3	-0.7	-0.4	-0.6	-0.6	-0.3
17	6.3	-0.1	-0.6	-0.6	-0.5	-0.4	-0.3
18	6.4	-0.3	-0.5	-0.2	-0.5	-0.4	-0.3
19	6.3	-0.2	-0.3	1.1	1.2	1.6	1.8
20	6.0	-0.2	-0.4	-0.6	-0.5	-0.5	-0.4
21	6.7	-0.8	-0.9	-0.3	-0.9	-0.9	-0.9
22	7.3	-0.8	-1.3	-1.3	-1.4	-1.4	-1.2
23	6.6	-0.1	-0.5	-0.5	-0.6	-0.6	-0.4
24	6.1	0.3	-0.4	-0.3	-0.4	-0.3	-0.4
MAX	8.8	0.4	0.2	1.1	1.2	1.6	1.8
MIN	5.8	-1.6	-2.5	-2.2	-2.3	-2.4	-2.7
AVG	6.4	-0.2	-0.6	-0.3	-0.4	-0.3	-0.4
STD	0.6	0.4	0.5	0.7	0.7	0.8	0.7
Open	0	0	0	0	0	0	0
Tech:	BE	BE	BE	BE	BE	BE	BE
EQUIP. ID	280	280	280	280	280	280	280
	1793	1793	1793	1793	1793	1793	1793



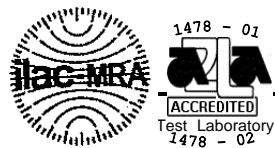
Low Level Contact Resistance - Delta Values

Project:	218012					Spec:	EIA 364 TP 23
Customer:	Samtec					Subgroup:	Group 2 Bd 13
Product:	LPAF-40-03.5-S-08-2-K-TR / LPAM-40-01.0-S-08-K-TR					File No.:	21801213
Description:	MFG Sequence					Tech:	BE
Open Circuit Voltage:	20mV					Current:	100mA
Units:	milliohms						
Temp °C	21°C	21°C	21°C	22°C	21°C	21°C	21°C
R.H. %	23%	30%	28%	25%	23%	20%	25%
Date:	01-Feb-2018	15-Feb-2018	27-Feb-2018	06-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	100X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	95X
			Unmated	Unmated	Mated	Mated	
1	6.5	-1.1	-1.1	-0.7	-0.9	-0.3	-0.8
2	7.0	-0.5	-1.0	-1.1	-1.3	-0.9	-1.0
3	7.8	-2.1	-2.0	-1.4	-1.5	-1.6	-2.1
4	6.1	-0.6	-0.6	-0.5	-0.6	0.8	-0.6
5	6.8	-1.6	-1.4	-0.9	-0.9	-0.8	-1.3
6	6.5	-1.0	-1.1	-0.4	-0.6	0.2	-1.0
7	7.9	-2.1	-2.1	-1.8	-1.8	-1.8	-2.2
8	6.8	-0.9	-0.6	-0.3	-0.5	-0.4	-1.0
9	6.6	-0.6	-0.3	-0.2	-0.3	0.3	-0.6
10	6.5	-0.6	-0.4	-0.3	-0.4	-0.2	-0.9
11	6.4	-0.3	-0.2	0.0	-0.3	-0.1	-0.6
12	6.4	-0.7	-0.7	-0.5	-0.5	-0.2	-0.8
13	6.5	-0.9	-0.8	-0.8	-0.9	-0.4	-1.0
14	6.1	-0.8	-0.6	0.1	0.0	-0.2	-0.7
15	6.3	-0.6	-0.4	-0.1	-0.2	0.7	0.1



An Independent Test and Research Laboratory

						File No.:	21801213
Temp °C	21°C	21°C	21°C	22°C	21°C	21°C	21°C
R.H. %	23%	30%	28%	25%	23%	20%	25%
Date:	01-Feb-2018	15-Feb-2018	27-Feb-2018	06-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	100X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	95X
			Unmated	Unmated	Mated	Mated	
16	5.9	-0.6	-0.4	0.0	-0.1	0.5	-0.3
17	6.3	-0.5	-0.2	-0.4	-0.6	0.2	-0.4
18	6.4	-0.5	-0.6	-0.5	-0.4	0.1	-0.5
19	6.3	-0.4	-0.1	-0.6	-0.5	-0.6	-0.7
20	5.9	-0.5	-0.4	0.0	-0.3	0.7	-0.4
21	6.1	-0.6	-0.4	0.2	-0.1	0.4	-0.1
22	6.6	-0.6	-0.6	-0.6	-0.6	-0.2	-0.7
23	5.7	-0.3	-0.3	0.1	-0.1	-0.2	-0.1
24	6.3	-0.8	-0.8	-0.5	-0.6	-0.8	-0.2
MAX	7.9	-0.3	-0.1	0.2	0.0	0.8	0.1
MIN	5.7	-2.1	-2.1	-1.8	-1.8	-1.8	-2.2
AVG	6.5	-0.8	-0.7	-0.5	-0.6	-0.2	-0.8
STD	0.5	0.5	0.5	0.5	0.5	0.7	0.6
Open	0	0	0	0	0	0	0
Tech:	BE	BE	BE	BE	BE	BE	BE
EQUIP. ID	280	280	280	280	280	280	280
	1793	1793	1793	1793	1793	1793	1793

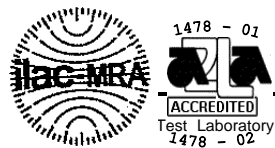


Low Level Contact Resistance - Delta Values

Project:	218012					Spec:	EIA 364 TP 23
Customer:	Samtec					Subgroup:	Group 2 Bd 14
Product:	LPAF-40-03.5-S-08-2-K-TR / LPAM-40-01.0-S-08-K-TR					File No.:	21801214
Description:	MFG Sequence					Tech:	BE
Open Circuit Voltage:	20mV					Current:	100mA
Units:	milliohms						
Temp °C	21°C	21°C	21°C	22°C	21°C	21°C	21°C
R.H. %	23%	30%	28%	25%	23%	20%	25%
Date:	01-Feb-2018	15-Feb-2018	27-Feb-2018	06-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	100X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	95X
			Unmated	Unmated	Mated	Mated	
1	6.3	0.1	-0.4	-0.3	-0.6	-0.6	-0.4
2	7.1	-1.3	-1.1	-0.2	-0.7	-0.6	-0.7
3	5.5	0.0	0.1	0.8	0.7	0.7	0.0
4	5.7	0.3	0.0	0.6	0.3	0.4	-0.2
5	5.5	-0.1	-0.1	-0.1	-0.2	0.0	-0.3
6	6.9	-0.7	-0.9	-1.0	-1.2	-1.1	-1.0
7	5.8	-0.2	-0.1	-0.1	0.1	0.3	-0.3
8	6.2	-0.1	-0.3	-0.2	-0.3	-0.3	-0.3
9	7.3	-1.2	-1.4	-0.4	-0.6	-0.7	-1.3
10	6.3	0.4	-0.3	-0.3	-0.5	-0.4	0.1
11	6.5	0.1	-0.3	0.0	-0.1	-0.1	0.1
12	5.6	-0.3	-0.3	-0.4	-0.4	-0.4	-0.2
13	6.4	-0.3	-0.5	-0.4	-0.5	-0.5	-0.5
14	6.4	-0.3	-0.3	-0.3	-0.5	-0.5	0.1
15	6.1	-0.1	-0.4	-0.2	-0.2	-0.2	-0.3

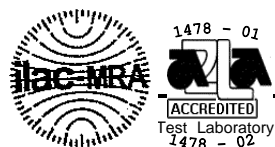


						File No.:	21801214
Temp °C	21°C	21°C	21°C	22°C	21°C	21°C	21°C
R.H. %	23%	30%	28%	25%	23%	20%	25%
Date:	01-Feb-2018	15-Feb-2018	27-Feb-2018	06-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	100X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	95X
			Unmated	Unmated	Mated	Mated	
16	7.1	-0.2	-0.8	-0.6	-0.7	-0.7	-1.0
17	6.5	0.2	-0.5	0.3	0.0	0.0	0.3
18	7.0	-0.7	-1.0	-0.9	-1.0	-1.0	-1.3
19	6.4	-0.6	-0.3	-0.1	0.1	0.0	0.4
20	7.3	-0.8	-1.1	-0.1	-0.6	-0.8	-0.6
21	7.4	-1.3	-1.2	-1.3	-1.5	-1.5	-1.3
22	7.2	-0.5	-1.5	-1.4	-1.5	-1.5	-1.3
23	6.8	-0.6	-0.8	-0.3	-0.4	-0.1	-0.6
24	6.6	-0.6	-0.3	-0.6	-0.2	0.2	-0.4
MAX	7.4	0.4	0.1	0.8	0.7	0.7	0.4
MIN	5.5	-1.3	-1.5	-1.4	-1.5	-1.5	-1.3
AVG	6.5	-0.4	-0.6	-0.3	-0.4	-0.4	-0.5
STD	0.6	0.5	0.5	0.5	0.5	0.6	0.5
Open	0	0	0	0	0	0	0
Tech:	BE	BE	BE	BE	BE	BE	BE
EQUIP. ID	280	280	280	280	280	280	280
	1793	1793	1793	1793	1793	1793	1793

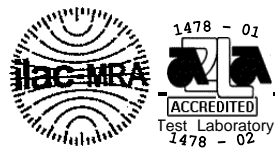


Low Level Contact Resistance - Delta Values

Project:	218012					Spec:	EIA 364 TP 23
Customer:	Samtec					Subgroup:	Group 2 Bd 15
Product:	LPAF-40-03.5-S-08-2-K-TR / LPAM-40-01.0-S-08-K-TR					File No.:	21801215
Description:	MFG Sequence					Tech:	BE
Open Circuit Voltage:	20mV					Current:	100mA
Units:	milliohms						
Temp °C	21°C	21°C	21°C	22°C	21°C	21°C	21°C
R.H. %	23%	30%	28%	25%	23%	20%	25%
Date:	01-Feb-2018	15-Feb-2018	27-Feb-2018	06-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	100X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	95X
			Unmated	Unmated	Mated	Mated	
1	6.3	-0.2	-0.9	-0.6	-0.8	-0.5	-0.6
2	6.2	-0.2	-0.6	-0.6	-0.7	-0.7	-0.1
3	5.9	0.1	0.0	-0.2	-0.3	-0.3	0.2
4	5.2	-0.1	-0.1	0.0	0.0	0.0	0.4
5	5.6	-0.2	-0.3	-0.4	-0.3	-0.3	-0.1
6	6.4	-0.2	-0.2	-0.1	-0.2	-0.2	0.1
7	6.3	-0.5	-0.6	-0.6	-0.6	-0.5	-0.7
8	6.3	-0.3	-0.4	-0.3	-0.4	-0.4	-0.3
9	7.2	-0.9	-1.3	-1.6	-1.7	-1.8	-1.1
10	6.5	-0.3	-0.4	-0.7	-0.7	-0.6	-0.5
11	6.2	-0.3	-0.1	-0.5	-0.6	-0.1	-0.3
12	6.7	-0.7	-0.7	-0.8	-0.9	-0.8	-0.5
13	7.4	-1.1	-1.4	-1.4	-1.5	-1.2	-1.4
14	6.0	-0.6	-0.6	-0.6	-0.6	0.4	-0.1
15	6.1	0.1	-0.8	-0.5	-0.6	-0.5	0.4



						File No.:	21801215
Temp °C	21°C	21°C	21°C	22°C	21°C	21°C	21°C
R.H. %	23%	30%	28%	25%	23%	20%	25%
Date:	01-Feb-2018	15-Feb-2018	27-Feb-2018	06-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	100X	MFG 5d	MFG 5d	MFG 5d	MFG 5d	95X
			Unmated	Unmated	Mated	Mated	
16	6.1	-0.3	-0.7	-0.5	-0.6	-0.1	-0.2
17	6.3	-0.2	-0.5	-0.6	-0.7	-0.6	-0.5
18	5.8	-0.2	-0.3	-0.3	-0.4	0.3	0.0
19	6.2	-0.3	-0.3	-0.2	-0.2	0.3	0.3
20	6.6	-0.4	-0.6	-0.5	-0.4	0.1	0.0
21	6.2	-0.5	-0.6	-0.5	-0.5	0.1	0.0
22	6.7	-0.3	-0.4	-0.6	-0.7	-0.8	-0.4
23	5.6	-0.1	-0.2	-0.2	0.0	0.0	-0.2
24	6.0	-0.3	-0.4	-0.5	-0.2	0.1	-0.2
MAX	7.4	0.1	0.0	0.0	0.0	0.4	0.4
MIN	5.2	-1.1	-1.4	-1.6	-1.7	-1.8	-1.4
AVG	6.2	-0.3	-0.5	-0.5	-0.6	-0.3	-0.2
STD	0.5	0.3	0.3	0.4	0.4	0.5	0.4
Open	0	0	0	0	0	0	0
Tech:	BE	BE	BE	BE	BE	BE	BE
EQUIP. ID	280	280	280	280	280	280	280
	1793	1793	1793	1793	1793	1793	1793



Low Level Contact Resistance - Delta Values

Project:	218012					Spec:	EIA 364 TP 23
Customer:	Samtec					Subgroup:	Group 2 Bd 16
Product:	LPAF-40-03.5-S-08-2-K-TR / LPAM-40-01.0-S-08-K-TR					File No.:	21801216
Description:	MFG Sequence					Tech:	BE
Open Circuit Voltage:	20mV					Current:	100mA
Units:	milliohms						
Temp °C	21°C	21°C	21°C	22°C	21°C	21°C	21°C
R.H. %	23%	30%	28%	25%	23%	20%	25%
Date:	01-Feb-2018	15-Feb-2018	27-Feb-2018	06-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	100X	MFG 5d	MFG 5d	MFG 5d	MDF 5d	95X
			Unmated	Unmated	Mated	Mated	
1	6.8	-0.3	-1.0	-0.8	-0.9	-0.9	-0.9
2	5.9	0.0	-0.3	-0.1	-0.3	-0.3	-0.2
3	5.5	0.0	0.3	0.2	0.1	0.5	0.2
4	5.5	0.1	0.1	0.0	-0.1	0.2	0.0
5	5.1	0.3	0.5	0.2	0.3	1.1	0.1
6	5.8	0.8	0.6	0.3	0.1	0.5	0.3
7	5.5	0.2	0.1	0.1	0.1	0.6	0.1
8	5.6	0.4	0.5	0.4	0.3	0.3	0.5
9	5.7	0.3	0.2	0.3	0.4	0.3	0.1
10	6.0	0.1	0.5	0.9	0.6	0.7	0.1
11	6.5	-0.3	-0.8	-0.7	-0.7	-0.6	-0.2
12	5.7	0.0	-0.1	-0.1	-0.1	-0.1	0.1
13	6.3	0.0	-0.2	0.1	0.0	0.0	0.3
14	6.1	0.3	-0.2	-0.2	-0.3	-0.3	-0.4
15	6.7	-0.6	-0.9	0.0	-0.1	-0.1	-0.4



						File No.:	21801216
Temp °C	21°C	21°C	21°C	22°C	21°C	21°C	21°C
R.H. %	23%	30%	28%	25%	23%	20%	25%
Date:	01-Feb-2018	15-Feb-2018	27-Feb-2018	06-Mar-2018	12-Mar-2018	20-Mar-2018	22-Mar-2018
Pos. ID:	Initial	100X	MFG 5d	MFG 5d	MFG 5d	MDF 5d	95X
			Unmated	Unmated	Mated	Mated	
16	7.0	-0.6	-1.3	-1.2	-1.4	-1.3	-1.3
17	6.8	0.5	-0.9	-0.6	-1.0	-0.8	-0.9
18	6.3	-0.2	-0.5	-0.3	-0.3	-0.2	0.3
19	6.2	-0.1	-0.4	-0.5	-0.6	0.2	-0.5
20	6.2	-0.2	-0.5	-0.3	-0.4	-0.2	-0.2
21	7.6	-1.1	-1.8	-1.8	-2.1	-1.8	-1.9
22	6.1	0.3	-0.3	0.2	0.1	1.5	0.7
23	7.0	-0.7	-1.1	-1.2	-1.3	-0.9	-1.2
24	7.0	-0.6	-0.7	-0.5	-0.5	-0.2	-0.3
MAX	7.6	0.8	0.6	0.9	0.6	1.5	0.7
MIN	5.1	-1.1	-1.8	-1.8	-2.1	-1.8	-1.9
AVG	6.2	0.0	-0.3	-0.2	-0.3	-0.1	-0.2
STD	0.6	0.4	0.6	0.6	0.6	0.8	0.6
Open	0	0	0	0	0	0	0
Tech:	BE	BE	BE	BE	BE	BE	BE
EQUIP. ID	280	280	280	280	280	280	280
	1793	1793	1793	1793	1793	1793	1793

