

MAY 15, 2015

TEST REPORT #215078 REVISION 1.1

MFG TESTING

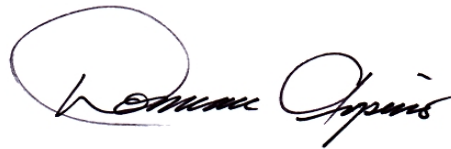
EXTREME LPHPOWER™ SIGNAL/POWER COMBO

PART NUMBER

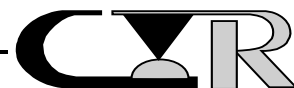
LPHS-08-32-S-RT1-GP

MATED WITH EDGE CARD

SAMTEC



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

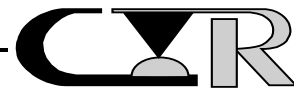
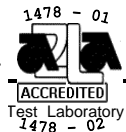


Contech Research

An Independent Test and Research Laboratory

REVISION HISTORY

DATE	REV. NO.	DESCRIPTION	ENG.
5/15/2015	1.0	Initial Issue	DA
5/22/2015	1.1	Editorial changes on the cover page.	DA

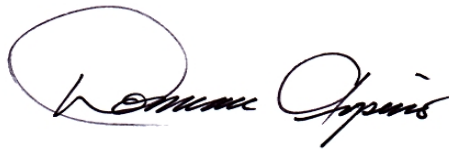


CERTIFICATION

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, of New Albany, IN who was the test sponsor.

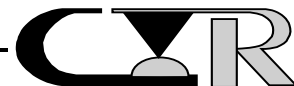
All equipment and measuring instruments used during testing were calibrated and traceable to NIST according to ISO 10012-1 and ANSI/NCSL Z540-1 and MIL-STD-45662 as applicable.

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.



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

DA: cf



SCOPE

To perform Mixed Flowing Gas testing on LPHS connectors as manufactured and submitted by the test sponsor Samtec.

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
3. Customer's Test Plan 626, Rev. 2 (Group 3)

TEST SAMPLES AND PREPARATION

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

Description:

EXTREME LPHPOWER™ SIGNAL/POWER COMBO

Part Number being tested:

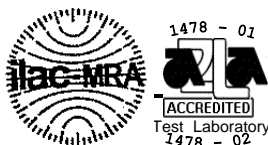
LPHS-08-32-S-RT1-GP

Mating Part:

EDGECARD

2. The test samples as submitted were supplied by the manufacturer as being fabricated and assembled utilizing normal production techniques common for this type of product and inspected in accordance with the quality criteria as established for the product involved.
3. Test samples were supplied assembled and terminated to test boards by the test sponsor.
4. Test boards for mounting test samples were supplied by the test sponsor.

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TEST SAMPLES AND PREPARATION -continued

5. Applicable qualified mating PCB's were supplied by the test sponsor.
6. All test samples were coded and identified by the test sponsor to maintain continuity throughout the test sequences. Upon initiating testing, mated test samples remained with each other throughout the test sequences for which they were designated.
7. All equipment and measuring instruments used during testing were calibrated and traceable to NIST according to ISO 10012-1 and ANSI/NCSL Z540-1, as applicable.
8. 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 3 - ID #17-24, No Lube

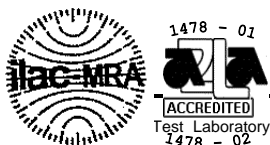


FIGURE #1

GROUP 3

SAMPLE PREPARATION

|

LLCR with edge card #1)

|

DURABILITY (20X)

|

Replace with new edge card #2

LLCR

|

MFG, 7 DAYS

Unmated expose connector only

|

LLCR

|

Replace & perform with new edge card #3

CYCLE 1X

|

LLCR

|

MFG, 7 DAYS

MATED

|

LLCR

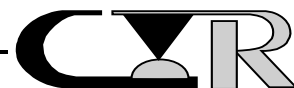
|

Replace & perform with new edge card #4

CYCLE 1X

|

LLCR

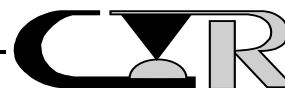


DATA SUMMARY

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
<u>SIGNAL DATA</u>		
LLCR Group #3	RECORD	20.8 mΩ MAX.
DURABILITY Group #3	NO DAMAGE	PASSED
LLCR * Group #3	+10.0 mΩ MAX.CHG.	+2.6 mΩ MAX.CHG.
MFG (DAY 1 TO 7, UNMATED) Group #1 THRU #5	NO CORROSION	PASSED
LLCR * Group #3	+10.0 mΩ MAX.CHG.	+4.4 mΩ MAX.CHG.
RESEAT 1X Group #3	NO DAMAGE	PASSED
LLCR * Group #3	+10.0 mΩ MAX.CHG.	+1.6 mΩ MAX.CHG.
MFG (MATED) Group #3	NO CORROSION	PASSED
LLCR * Group #3	+10.0 mΩ MAX.CHG.	+3.1 mΩ MAX.CHG.
RESEAT 1X Group #3	NO DAMAGE	PASSED
LLCR * Group #3	+10.0 mΩ MAX.CHG.	+3.3 mΩ MAX.CHG.

* LLCR performed with a new Edge Card

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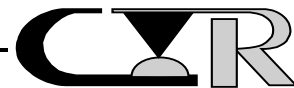
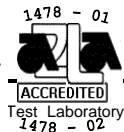


DATA SUMMARY -continued

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
<u>POWER DATA</u>		
LLCR Group #3	RECORD	0.26 mΩ MAX.
DURABILITY Group #3	NO DAMAGE	PASSED
LLCR * Group #3	+10.0 mΩ MAX.CHG.	+0.04 mΩ MAX.CHG.
MFG (DAY 1 TO 7, UNMATED) Group #1 THRU #5	NO CORROSION	PASSED
LLCR * Group #3	+10.0 mΩ MAX.CHG.	+0.10 mΩ MAX.CHG.
RESEAT 1X Group #1 THRU #5	NO DAMAGE	PASSED
LLCR * Group #3	+10.0 mΩ MAX.CHG.	+0.07 mΩ MAX.CHG.
MFG (MATED) Group #3	NO CORROSION	PASSED
LLCR * Group #3	+10.0 mΩ MAX.CHG.	+0.06 mΩ MAX.CHG.
RESEAT 1X Group #3	NO DAMAGE	PASSED
LLCR * Group #3	+10.0 mΩ MAX.CHG.	+0.20 mΩ MAX.CHG.

* LLCR performed with a new Edge Card

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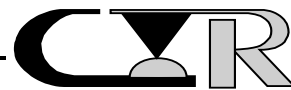


EQUIPMENT LIST

ID#	Next Cal	Last Cal	Equipment Name	Manufacturer	Model #	Serial #	Accuracy	Freq. Cal
266	8/20/2015	8/20/2014	Micro-Ohm Meter	Keithley Instr.	580-1	472438	See Cal Cert	12 mon
509	N/A	N/A	Regulator	Liquid Carbonic	SGS 160C	M2 42365	N/A	N/A
543	12/31/2015	12/31/2014	Analytical Balance	Ohaus Co.	AP250D	MO9198	± .4mg	12 mon
650	3/23/2016	3/3/2015	Digital Multimeter	Hewlett Packard	34401A	US36032126	See Cal Cert	12 mon
673	9/11/2015	9/11/2014	Microohm Meter	Keithley Co.	580	0681911	See Cal Cert	12 mon
1297	N/A	N/A	MFG Control Panel	Contech Research	N/A	N/A	C1686A	N/A
1298	N/A	N/A	MFG Chamber	Contech Research	64 Cu Ft	N/A	N/A	N/A
1326	N/A	N/A	Gas Regulator	Matheson	3810-660	R77108	N/A	N/A
1327	N/A	N/A	Gas Regulator	Matheson	3810-330	262813	N/A	N/A
1380	N/A	N/A	Scanner Main Frame	Keithley	7011	0672970	See Manual	Ea Test
1381	N/A	N/A	Air Dryer	Balston	75-20	A03391	See Manual	N/A
1571	N/A	N/A	Chlorine Analyzer	IMS CO.	Air Sentury	1265AN	See Cal Cert	EA Test
1589	N/A	N/A	Computer	IBM	MFG Lab	MFG-01	N/A	N/A
1595	N/A	N/A	H2S Analyzer	Teledyne Analyzer	101-E	1231	N/A	N/A
1599	N/A	N/A	NO2 Analyzer	Teledyne Analyzer	200E	289	N/A	N/A
1658	N/A	N/A	Stirring Hot Plate	Corning	PC-420D	133510042123	See Manual	Ea Test
1669	N/A	N/A	Computer	Dell	Vostro 410	BJ63GH1	N/A	N/A
1687	N/A	N/A	Regulator Chlorine	APG CO	S2-75	N/A	N/A	N/A
1793	N/A	N/A	Computer	Dell	Optiplex	CKWCPC1	N/A	N/A



TEST RESULTS



PROJECT NO.: 215078

SPECIFICATION: EIA-364 TP 23

PART NO.: See page 4

PART DESCRIPTION: See page 4

SAMPLE SIZE: 8 samples

TECHNICIAN: BE/MHB

START DATE: 4/16/15

COMPLETE DATE: 4/16/15

ROOM AMBIENT: 21°C

RELATIVE HUMIDITY: 32%

EQUIPMENT ID#: 266, 673, 1669, 1793

LOW LEVEL CIRCUIT RESISTANCE (LLCR)

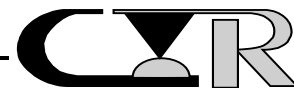
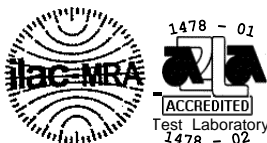
PURPOSE:

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.
2. Test Conditions:
 - a) Test Current : 100 milliamps maximum
 - b) Open Circuit Voltage : 20 millivolts
 - c) No. of Positions Tested : 20 Signal & 4 Power per sample

-continued on next page.



PROCEDURE: -continued

3. Per the test sponsors request the edge card was replaced with a new edge card during the test sequence, see flow chart, Figure #1, where edge card replacements is indicated with an asterisk.

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)

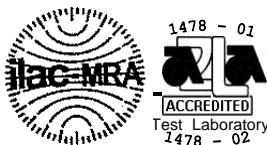
SIGNAL DATA

<u>Sample ID#</u>	<u>Avg.</u>	<u>Max.</u>	<u>Min.</u>
17	17.6	19.6	14.9
18	17.5	20.0	14.4
19	18.0	20.8	14.9
20	17.4	19.9	14.2
21	17.7	20.3	15.0
22	17.5	19.4	14.8
23	17.5	19.4	14.1
24	17.6	20.2	14.9

POWER DATA

<u>Sample ID#</u>	<u>Avg.</u>	<u>Max.</u>	<u>Min.</u>
17	0.21	0.22	0.21
18	0.22	0.23	0.19
19	0.22	0.24	0.21
20	0.22	0.24	0.19
21	0.21	0.22	0.20
22	0.22	0.23	0.21
23	0.23	0.26	0.21
24	0.22	0.26	0.21

2. See data files 21507817 (P) thru 21507824 (P) for the individual data points.



PROJECT NO.: 215078

SPECIFICATION: EIA-364 TP 09

PART NO.: See Page 4

PART DESCRIPTION: See page 4

SAMPLE SIZE: 8 samples

TECHNICIAN: BE

START DATE: 4/20/15

COMPLETE DATE: 4/20/15

ROOM AMBIENT: 21°C

RELATIVE HUMIDITY: 49%

EQUIPMENT ID#: Manual

DURABILITY

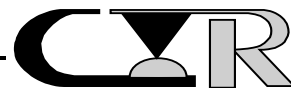
PURPOSE:

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 : 20
3. The durability cycling was performed manually.
4. All subsequent variable testing was performed in accordance with the procedures previously indicated.

REQUIREMENTS: See Next Page



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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 visual or 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)

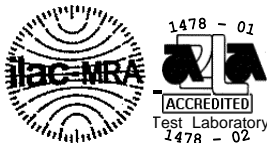
SIGNAL DATA

<u>Sample ID #</u>	<u>Avg. Change</u>	<u>Max. Change</u>
17	-0.2	+0.8
18	+0.2	+1.8
19	-0.4	+0.9
20	+0.3	+1.7
21	+0.6	+2.6
22	+0.4	+2.0
23	+0.4	+1.4
24	+0.2	+1.9

POWER DATA

<u>Sample ID #</u>	<u>Avg. Change</u>	<u>Max. Change</u>
17	+0.00	+0.01
18	+0.01	+0.03
19	-0.02	-0.01
20	+0.01	+0.03
21	+0.01	+0.01
22	+0.02	+0.04
23	+0.01	+0.04
24	+0.00	+0.02

3. See data files 21507817 (P) thru 21507824 (P) for individual data points.



PROJECT NO.: 215078

SPECIFICATION: EIA-364-65B

PART NO.: See page 4

PART DESCRIPTION: See page 4

SAMPLE SIZE: 8 samples

TECHNICIAN: AJP

START DATE: 4/22/15

COMPLETE DATE: 5/07/15

ROOM AMBIENT: 21°C

RELATIVE HUMIDITY: 48%

EQUIPMENT ID#: 509, 543, 650, 1297, 1298, 1326, 1327, 1380,
1381, 1571, 1589, 1595, 1599, 1658, 1687

MIXED FLOWING GAS

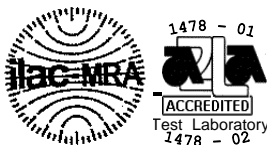
PURPOSE:

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 65B with the following conditions.

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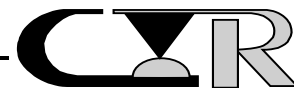
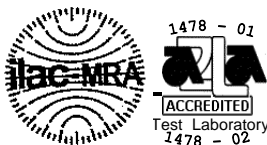
PROCEDURE: -continued

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 : 14 days
- h) Mating Conditions : Day 1 to 7, Unmated (the mating PCB was not exposed)
Day 8 to 14, Mated
- 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.

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PROCEDURE: -continued

- c) Measure and record low level circuit resistance measurements, Reseat one time and perform LLCR once again.
 - 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.
9. Following completion of each 7 day MFG test exposure, the samples were subjected to the tests indicated below:
- a) LLCR
 - b) Cycle 1X
 - c) LLCR
10. All subsequent variable testing was performed in accordance with the procedures previously indicated.

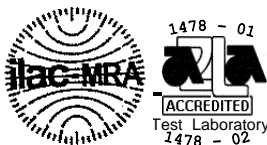
REQUIREMENTS:

- 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 no evidence of physical damage or corrosion

-continued on next page.



RESULTS -continued

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

CHANGE IN
LOW LEVEL CIRCUIT RESISTANCE
(milliohms)

<u>SIGNAL DATA</u>	<u>@ 7 Days MFG</u>		<u>Cycle 1X</u>	
	<u>Avg. Change</u>	<u>Max. Change</u>	<u>Avg. Change</u>	<u>Max. Change</u>
<u>Sample</u>				
17	+0.0	+1.5	+0.3	+1.4
18	+0.5	+2.6	+0.3	+1.5
19	+0.0	+2.2	-0.6	+0.5
20	+0.7	+1.8	+0.0	+0.9
21	+0.9	+4.4	+0.4	+1.6
22	+0.8	+3.1	+0.3	+1.5
23	+0.7	+2.5	+0.4	+1.2
24	+1.2	+3.8	-0.5	+0.8

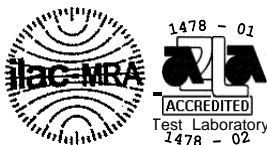
3. The following is a summary of the observed data after 14 days of MFG exposure:

CHANGE IN
LOW LEVEL CIRCUIT RESISTANCE
(milliohms)

<u>SIGNAL DATA</u>	<u>@ 14 Days MFG</u>		<u>Cycle 1X</u>	
	<u>Avg. Change</u>	<u>Max. Change</u>	<u>Avg. Change</u>	<u>Max. Change</u>
<u>Sample</u>				
17	+0.5	+2.6	+0.2	+1.2
18	+1.4	+3.1	+0.4	+1.7
19	-0.2	+0.9	+0.5	+0.5
20	+0.2	+1.1	+0.7	+1.8
21	+0.5	+2.6	+0.4	+1.3
22	+0.7	+2.2	+0.6	+2.0
23	+0.6	+1.5	+0.3	+1.5
24	-0.2	+0.7	+0.7	+2.1

4. See data files 21507817 thru 21507824 for individual data points.

-continued on next page.



RESULTS -continued

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

CHANGE IN
LOW LEVEL CIRCUIT RESISTANCE
(milliohms)

<u>POWER DATA</u>	<u>@ 7 Days MFG</u>		<u>Cycle 1X</u>	
<u>Sample</u>	<u>Avg. Change</u>	<u>Max. Change</u>	<u>Avg. Change</u>	<u>Max. Change</u>
17	+0.00	+0.02	+0.01	+0.03
18	+0.02	+0.05	+0.03	+0.05
19	-0.01	+0.00	-0.01	+0.00
20	+0.04	+0.09	+0.03	+0.07
21	+0.01	+0.02	+0.01	+0.02
22	+0.02	+0.06	+0.00	+0.02
23	+0.03	+0.10	+0.00	+0.01
24	+0.03	+0.04	+0.01	+0.04

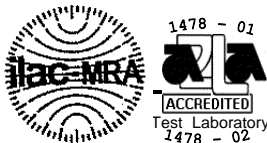
6. The following is a summary of the observed data after 14 days of MFG exposure:

CHANGE IN
LOW LEVEL CIRCUIT RESISTANCE
(milliohms)

<u>POWER DATA</u>	<u>@ 14 Days MFG</u>		<u>Cycle 1X</u>	
<u>Sample</u>	<u>Avg. Change</u>	<u>Max. Change</u>	<u>Avg. Change</u>	<u>Max. Change</u>
17	+0.03	+0.05	+0.03	+0.12
18	+0.02	+0.06	+0.10	+0.20
19	+0.01	+0.03	+0.01	+0.03
20	+0.02	+0.04	+0.02	+0.04
21	-0.01	+0.01	+0.01	+0.03
22	+0.01	+0.03	+0.01	+0.02
23	-0.01	+0.01	+0.01	+0.05
24	+0.02	+0.05	+0.03	+0.06

7. See data files 21507817P thru 21507824P for individual data points.

-continued on next page.

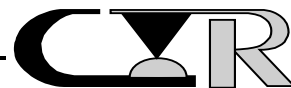
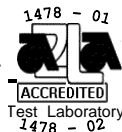


RESULTS -continued

8. Five copper coupons were placed in the chamber for each of the seven days of exposure. Upon removal said coupons were evaluated via weight gain technique with the following results:

<u>Coupon No.</u>	<u>WEIGHT GAIN ($\mu\text{gm}/\text{cm}^2/\text{Day}$)</u>	
	<u>Set 1</u>	<u>Set 2</u>
1	12	15+
2	13	13+
3	12	12+
4	16	14
5	16	12+

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



SIGNAL LLCR DATA FILES

GROUP 3

21507817

21507818

21507819

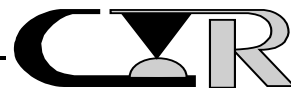
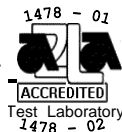
21507820

21507821

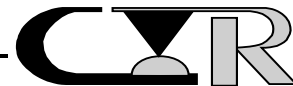
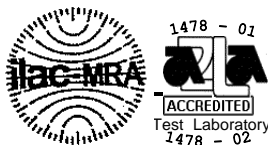
21507822

21507823

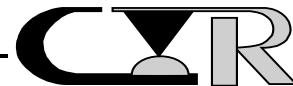
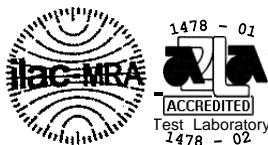
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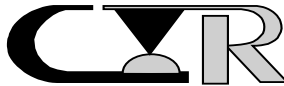
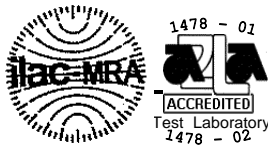
Low Level Contact Resistance - Delta Values						
Project:	215078				Spec:	EIA 364 TP 23
Customer:	Samtec			Subgroup: Group 3 No Lube		
Product:	LPHS-08-32-S-RT1-GP			File No.:	21507817	
Description: ASP-183823-01				Tech:	BE	
Open Circuit Voltage:	20mV			Current:	100mA	
Units:	milliohms					
Temp °C	21°C	21°C	22°C	22°C	21°C	21°C
R.H. %	32%	49%	34%	37%	37%	41%
Date:	16-Apr-15	21-Apr-15	29-Apr-15	30-Apr-15	7-May-2015	8-May-15
Pos. ID	Initial	Durability	MFG 7 Days	1 X	MFG 7d	1X
		20X	Unmated		Mated	
17-1	14.9	0.0	0.2	0.1	0.5	0.0
17-2	15.6	-0.4	-0.1	0.3	0.4	0.0
17-3	15.3	0.3	-0.3	1.1	1.2	0.2
17-4	14.9	-0.3	-0.3	-1.6	-0.6	-0.6
17-5	16.6	-0.8	-0.8	0.2	2.6	-0.4
17-6	15.4	-1.5	-0.3	-1.4	-1.1	0.3
17-7	19.2	0.4	0.6	0.6	0.4	-1.0
17-8	18.3	0.4	-0.3	1.4	1.3	0.5
17-9	18.4	0.8	1.5	0.1	0.2	0.4
17-10	18.8	-0.6	-1.0	1.1	1.4	0.0
17-11	18.0	0.3	0.4	0.6	0.8	0.4
17-12	18.8	-0.1	0.1	1.4	0.8	0.6
17-13	18.3	0.6	1.1	0.0	0.3	1.2
17-14	18.0	-0.4	0.1	0.4	0.4	1.0
17-15	18.8	0.0	0.1	-0.1	-0.5	0.3
17-16	18.5	-0.2	0.0	0.9	1.3	0.3
17-17	19.4	-0.6	-0.3	0.1	-0.2	0.1
17-18	19.1	-0.6	-0.5	0.1	0.2	1.0
17-19	19.6	-0.8	-0.5	0.3	0.2	-0.8
17-20	17.0	-0.4	-0.1	0.6	1.0	-0.5
MAX	19.6	0.8	1.5	1.4	2.6	1.2
MIN	14.9	-1.5	-1.0	-1.6	-1.1	-1.0
AVG	17.6	-0.2	0.0	0.3	0.5	0.2
STD	1.6	0.5	0.6	0.8	0.8	0.6
Open	0	0	0	0	0	0
Tech:	BE	BE	MHB	MHB	BE	BE
EQUIP. ID	673	673	1669	1669	673	673
	1793	1793	266	266	1793	1793



Low Level Contact Resistance - Delta Values						
Project:	215078				Spec: EIA 364 TP 23	
Customer:	Samtec			Subgroup: Group 3 No Lube		
Product:	LPHS-08-32-S-RT1-GP			File No.:	21507818	
Description:	ASP-183823-01			Tech:	BE	
Open Circuit Voltage:	20mV			Current:	100mA	
Units:	milliohms					
Temp °C	21°C	21°C	22°C	22°C	21°C	21°C
R.H. %	32%	49%	34%	37%	37%	41%
Date:	16-Apr-15	21-Apr-15	29-Apr-15	30-Apr-15	7-May-15	8-May-15
Pos. ID	Initial	Durability	MFG 7 Days	1 X	MFG 7d	1X
		20X	Unmated		Mated	
18-1	15.1	-0.2	0.0	0.0	1.2	0.3
18-2	15.7	0.5	0.6	0.4	1.5	0.9
18-3	15.4	0.3	0.8	-0.2	1.2	0.1
18-4	14.8	-0.1	0.8	-0.1	0.6	0.2
18-5	15.6	0.3	0.3	1.1	2.8	0.5
18-6	14.4	-0.3	-0.5	-0.2	0.5	0.7
18-7	19.2	0.3	0.9	0.6	2.0	0.6
18-8	17.1	0.1	0.4	0.1	0.6	1.3
18-9	18.5	0.7	1.3	1.0	1.9	0.3
18-10	18.4	-1.0	-1.0	-0.7	-0.8	0.3
18-11	18.9	0.7	1.4	0.4	1.4	-0.1
18-12	17.6	0.8	1.1	0.6	0.8	-0.2
18-13	19.2	-0.1	0.3	0.1	0.6	-0.1
18-14	20.0	-0.8	-0.4	-1.4	-0.1	0.6
18-15	19.2	0.8	1.4	0.7	2.9	0.5
18-16	18.0	0.1	-0.6	0.3	1.5	0.0
18-17	19.2	-0.4	0.4	0.5	1.3	-0.3
18-18	17.9	1.8	2.6	1.5	2.9	0.9
18-19	19.5	-0.2	-0.1	-0.2	1.4	-0.2
18-20	15.5	1.1	0.8	1.5	3.1	1.7
MAX	20.0	1.8	2.6	1.5	3.1	1.7
MIN	14.4	-1.0	-1.0	-1.4	-0.8	-0.3
AVG	17.5	0.2	0.5	0.3	1.4	0.4
STD	1.8	0.7	0.8	0.7	1.0	0.5
Open	0	0	0	0	0	0
Tech:	BE	BE	MHB	MHB	BE	BE
EQUIP. ID	673	673	1669	1669	673	673
	1793	1793	266	266	1793	1793



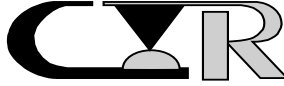
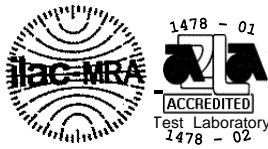
Low Level Contact Resistance - Delta Values						
Project:	215078				Spec: EIA 364 TP 23	
Customer:	Samtec			Subgroup: Group 3 No Lube		
Product:	LPHS-08-32-S-RT1-GP			File No.:	21507819	
Description:	ASP-183823-01			Tech:	BE	
Open Circuit Voltage:	20mV			Current:	100mA	
Units:	milliohms					
Temp °C	21°C	21°C	22°C	22°C	21°C	21°C
R.H. %	32%	49%	34%	37%	37%	41%
Date:	16-Apr-15	21-Apr-15	29-Apr-15	30-Apr-15	7-May-15	8-May-15
Pos. ID	Initial	Durability	MFG 7 Days	1 X	MFG 7d	1X
		20X	Unmated		Mated	
19-1	15.1	-0.6	-0.3	-0.1	0.9	-0.7
19-2	15.6	0.2	0.2	0.2	0.7	0.9
19-3	15.8	0.0	0.1	-0.1	0.1	0.2
19-4	14.9	-0.8	-0.7	-0.1	0.4	-0.3
19-5	15.9	0.5	0.6	0.5	0.8	1.1
19-6	15.4	-0.2	-0.2	-0.6	0.0	0.3
19-7	19.5	-0.4	0.5	-1.1	-0.3	1.1
19-8	17.5	0.9	0.5	0.3	0.7	1.5
19-9	19.8	-0.3	-0.2	-1.0	-0.6	0.9
19-10	18.8	0.3	2.2	0.2	0.4	3.3
19-11	20.8	-1.0	0.2	-1.2	0.2	0.9
19-12	19.0	-1.4	-0.9	-1.7	-1.4	-1.1
19-13	20.1	-1.1	-1.3	-2.2	-1.4	-0.7
19-14	18.3	-0.2	-0.2	-0.6	-0.6	2.0
19-15	20.5	-1.2	-0.9	-0.7	-1.4	-1.0
19-16	18.3	0.0	0.2	-0.1	-0.2	0.5
19-17	20.8	-1.6	-1.0	-2.3	-1.5	-1.7
19-18	18.2	-0.1	0.3	-0.3	-0.2	1.1
19-19	19.5	-0.4	0.2	-0.5	-0.4	1.3
19-20	16.1	0.2	0.3	0.0	0.4	1.2
MAX	20.8	0.9	2.2	0.5	0.9	3.3
MIN	14.9	-1.6	-1.3	-2.3	-1.5	-1.7
AVG	18.0	-0.4	0.0	-0.6	-0.2	0.5
STD	2.0	0.7	0.8	0.8	0.8	1.2
Open	0	0	0	0	0	0
Tech:	BE	BE	MHB	MHB	BE	BE
EQUIP. ID	673	673	1669	1669	673	673
	1793	1793	266	266	1793	1793



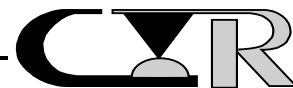
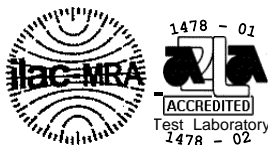
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Low Level Contact Resistance - Delta Values						
Project:	215078				Spec: EIA 364 TP 23	
Customer:	Samtec			Subgroup: Group 3 No Lube		
Product:	LPHS-08-32-S-RT1-GP			File No.:	21507820	
Description:	ASP-183823-01			Tech:	BE	
Open Circuit Voltage:	20mV			Current:	100mA	
Units:	milliohms					
Temp °C	21°C	21°C	22°C	22°C	21°C	21°C
R.H. %	32%	49%	34%	37%	37%	41%
Date:	16-Apr-15	21-Apr-15	29-Apr-15	30-Apr-15	7-May-15	8-May-15
Pos. ID	Initial	Durability	MFG 7 Days	1 X	MFG 7d	1X
		20X	Unmated		Mated	
20-1	15.4	0.7	0.5	0.0	0.1	0.7
20-2	15.6	0.1	0.0	-0.3	-0.1	1.3
20-3	16.3	-0.5	-0.2	-0.9	-0.6	0.2
20-4	14.3	1.7	1.4	-0.1	0.0	0.3
20-5	15.9	-0.1	0.4	-0.5	-0.5	0.4
20-6	14.2	0.4	0.2	0.2	0.1	0.4
20-7	19.2	0.7	1.5	-0.2	1.0	0.8
20-8	17.5	-0.3	0.5	-0.1	0.3	0.3
20-9	19.1	0.1	1.7	-0.2	0.0	0.1
20-10	17.7	1.0	1.1	0.8	0.8	0.9
20-11	18.8	0.7	0.9	0.9	1.1	1.0
20-12	18.5	-0.4	-0.2	0.0	0.0	-0.5
20-13	18.6	0.1	1.1	0.4	0.3	0.0
20-14	19.9	-1.3	-1.9	-1.6	-1.6	1.3
20-15	18.6	0.4	1.7	0.4	0.8	0.8
20-16	17.6	1.1	1.8	0.6	0.5	1.0
20-17	18.7	0.4	1.3	0.7	0.6	0.7
20-18	17.9	0.2	1.1	-0.3	-0.2	1.8
20-19	18.4	1.2	1.0	0.3	0.4	1.2
20-20	16.5	-0.4	-0.1	0.5	0.6	0.4
MAX	19.9	1.7	1.8	0.9	1.1	1.8
MIN	14.2	-1.3	-1.9	-1.6	-1.6	-0.5
AVG	17.4	0.3	0.7	0.0	0.2	0.7
STD	1.7	0.7	0.9	0.6	0.6	0.5
Open	0	0	0	0	0	0
Tech:	BE	BE	MHB	MHB	BE	BE
EQUIP. ID	673	673	1669	1669	673	673
	1793	1793	266	266	1793	1793



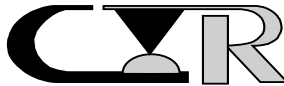
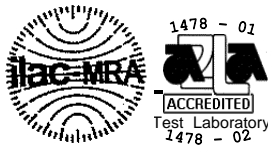
Low Level Contact Resistance - Delta Values						
Project:	215078				Spec: EIA 364 TP 23	
Customer:	Samtec			Subgroup: Group 3 No Lube		
Product:	LPHS-08-32-S-RT1-GP			File No.:	21507821	
Description:	ASP-183823-01			Tech:	BE	
Open Circuit Voltage:	20mV			Current:	100mA	
Units:	milliohms					
Temp °C	21°C	21°C	22°C	22°C	21°C	21°C
R.H. %	32%	49%	34%	37%	37%	41%
Date:	16-Apr-15	21-Apr-15	29-Apr-15	30-Apr-15	7-May-15	8-May-15
Pos. ID	Initial	Durability	MFG 7 Days	1 X	MFG 7d	1X
		20X	Unmated		Mated	
21-1	15.0	-0.8	-0.7	-0.8	-0.5	0.1
21-2	15.4	0.9	1.2	1.5	0.8	-0.4
21-3	15.7	1.1	0.9	0.2	0.4	0.6
21-4	15.7	0.1	0.0	-1.2	-0.9	0.1
21-5	15.7	0.2	0.7	0.3	0.8	-0.2
21-6	15.6	-0.4	-0.6	-1.7	-1.4	0.5
21-7	19.6	0.7	1.2	0.4	0.5	0.4
21-8	18.0	2.3	2.6	0.2	0.4	0.0
21-9	19.9	0.5	0.8	0.2	0.5	0.0
21-10	17.8	1.1	1.2	1.5	1.7	1.3
21-11	19.6	0.2	0.1	0.1	0.8	0.8
21-12	18.1	0.4	0.9	1.5	2.6	1.2
21-13	19.8	-0.5	-0.4	0.3	0.4	0.7
21-14	18.0	0.1	1.2	1.6	0.6	-0.2
21-15	20.3	0.4	1.6	0.3	0.5	0.5
21-16	18.4	-0.3	0.6	0.9	0.8	0.7
21-17	18.8	0.4	0.7	1.1	1.1	1.0
21-18	17.7	2.6	4.4	-0.2	-0.1	0.3
21-19	18.5	0.8	0.8	-0.2	0.0	0.7
21-20	16.1	1.1	1.1	1.3	1.9	-0.2
MAX	20.3	2.6	4.4	1.6	2.6	1.3
MIN	15.0	-0.8	-0.7	-1.7	-1.4	-0.4
AVG	17.7	0.6	0.9	0.4	0.5	0.4
STD	1.7	0.8	1.1	0.9	0.9	0.5
Open	0	0	0	0	0	0
Tech:	BE	BE	MHB	MHB	BE	BE
EQUIP. ID	673	673	1669	1669	673	673
	1793	1793	266	266	1793	1793



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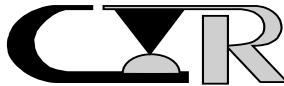
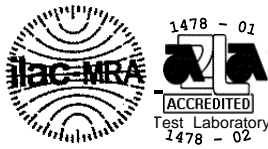
Low Level Contact Resistance - Delta Values						
Project:	215078				Spec: EIA 364 TP 23	
Customer:	Samtec			Subgroup: Group 3 No Lube		
Product:	LPHS-08-32-S-RT1-GP			File No.:	21507822	
Description:	ASP-183823-01			Tech:	BE	
Open Circuit Voltage:	20mV			Current:	100mA	
Units:	milliohms					
Temp °C	21°C	21°C	22°C	22°C	21°C	21°C
R.H. %	32%	49%	34%	37%	37%	41%
Date:	16-Apr-15	21-Apr-15	29-Apr-15	30-Apr-15	7-May-15	8-May-15
Pos. ID	Initial	Durability	MFG 7 Days	1 X	MFG 7d	1X
		20X	Unmated		Mated	
22-1	14.8	-0.4	-0.4	-0.1	-0.1	0.5
22-2	15.4	1.3	2.0	-0.1	0.3	1.5
22-3	15.5	1.3	1.4	-0.1	-0.1	0.4
22-4	15.3	-1.2	-1.1	0.3	-0.4	0.7
22-5	15.5	1.4	1.2	0.2	0.1	0.9
22-6	15.2	-0.7	1.7	0.4	-0.4	1.1
22-7	18.9	1.3	2.1	1.4	2.1	1.4
22-8	17.0	1.0	1.1	0.3	1.7	0.8
22-9	18.9	-0.1	-0.3	0.6	0.7	0.3
22-10	17.9	2.0	3.1	1.5	2.2	2.0
22-11	19.3	0.3	0.8	0.2	0.6	0.1
22-12	17.4	0.0	0.7	0.2	0.4	0.2
22-13	19.4	-0.4	0.2	0.1	0.5	0.3
22-14	18.8	-0.5	-0.6	-0.2	1.7	-0.8
22-15	19.4	0.6	1.1	1.0	0.8	0.9
22-16	18.7	-0.3	0.9	0.4	1.2	-0.4
22-17	19.1	0.5	1.0	0.6	0.7	1.0
22-18	17.8	1.1	1.1	0.2	0.9	0.2
22-19	18.6	0.5	0.8	0.0	0.9	0.3
22-20	17.1	-0.3	-0.2	0.2	-0.1	0.5
MAX	19.4	2.0	3.1	1.5	2.2	2.0
MIN	14.8	-1.2	-1.1	-0.2	-0.4	-0.8
AVG	17.5	0.4	0.8	0.3	0.7	0.6
STD	1.7	0.9	1.0	0.5	0.8	0.6
Open	0	0	0	0	0	0
Tech:	BE	BE	MHB	MHB	BE	BE
EQUIP. ID	673	673	1669	1669	673	673
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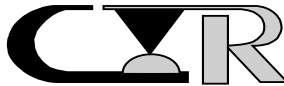
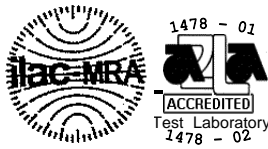
Low Level Contact Resistance - Delta Values						
Project:	215078				Spec: EIA 364 TP 23	
Customer:	Samtec			Subgroup: Group 3 No Lube		
Product:	LPHS-08-32-S-RT1-GP			File No.:	21507823	
Description:	ASP-183823-01			Tech:	BE	
Open Circuit Voltage:	20mV			Current:	100mA	
Units:	milliohms					
Temp °C	21°C	21°C	22°C	22°C	21°C	21°C
R.H. %	32%	49%	34%	37%	37%	41%
Date:	16-Apr-15	21-Apr-15	29-Apr-15	30-Apr-15	7-May-15	8-May-15
Pos. ID	Initial	Durability	MFG 7 Days	1 X	MFG 7d	1X
		20X	Unmated		Mated	
23-1	14.1	0.3	0.9	0.8	1.1	0.2
23-2	15.4	1.0	0.6	0.2	0.6	-0.1
23-3	16.3	0.3	-1.0	-0.7	-0.4	0.1
23-4	14.5	-0.5	0.3	1.0	1.3	0.0
23-5	17.1	-0.5	-1.2	-1.0	-0.9	-0.3
23-6	15.3	0.0	-0.1	0.1	0.2	-1.3
23-7	19.4	0.9	0.6	0.6	1.2	0.4
23-8	18.1	0.4	-0.4	-0.5	-0.3	-0.9
23-9	19.1	1.3	1.8	0.4	1.2	1.1
23-10	18.4	0.0	0.4	-0.1	0.1	-1.0
23-11	19.0	0.8	1.0	0.5	0.9	0.2
23-12	18.1	0.2	1.2	0.8	0.8	0.8
23-13	18.5	1.1	1.9	1.1	1.2	0.7
23-14	17.9	0.6	0.4	0.5	0.7	1.5
23-15	18.5	0.3	2.5	1.2	1.5	1.2
23-16	18.1	0.0	0.9	0.5	0.5	1.0
23-17	19.0	0.9	1.7	1.1	1.2	0.3
23-18	17.7	1.4	1.4	0.2	0.6	0.8
23-19	19.2	-0.2	1.0	0.7	1.1	0.0
23-20	16.7	0.3	-0.8	-0.2	0.5	0.4
MAX	19.4	1.4	2.5	1.2	1.5	1.5
MIN	14.1	-0.5	-1.2	-1.0	-0.9	-1.3
AVG	17.5	0.4	0.7	0.4	0.6	0.3
STD	1.6	0.6	1.0	0.6	0.6	0.7
Open	0	0	0	0	0	0
Tech:	BE	BE	MHB	MHB	BE	BE
EQUIP. ID	673	673	1669	1669	673	673
	1793	1793	266	266	1793	1793



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Low Level Contact Resistance - Delta Values						
Project:	215078				Spec: EIA 364 TP 23	
Customer:	Samtec			Subgroup: Group 3 No Lube		
Product:	LPHS-08-32-S-RT1-GP			File No.:	21507824	
Description:	ASP-183823-01			Tech:	BE	
Open Circuit Voltage:	20mV			Current:	100mA	
Units:	milliohms					
Temp °C	21°C	21°C	22°C	22°C	21°C	21°C
R.H. %	32%	49%	34%	37%	37%	41%
Date:	16-Apr-15	21-Apr-15	29-Apr-15	30-Apr-15	7-May-15	8-May-15
Pos. ID	Initial	Durability	MFG 7 Days	1 X	MFG 7d	1X
		20X	Unmated		Mated	
24-1	15.2	-0.6	-0.7	-0.4	-0.1	1.0
24-2	16.8	-0.7	0.2	-0.7	-0.3	0.6
24-3	16.6	-1.1	0.7	-0.7	-0.6	0.2
24-4	15.2	-0.2	-1.0	-1.2	-0.8	0.3
24-5	16.1	-0.1	1.4	-0.9	-0.3	-0.2
24-6	14.9	0.3	-0.2	-1.0	-0.7	1.7
24-7	20.2	-0.2	1.9	-1.4	-0.2	0.3
24-8	17.7	0.1	0.6	-0.2	-0.2	-0.1
24-9	20.2	-0.3	1.8	0.2	0.0	-0.2
24-10	17.7	0.1	2.5	0.3	0.4	0.1
24-11	19.1	0.3	2.8	-0.5	-0.5	0.9
24-12	18.0	0.3	1.9	-1.0	-0.8	0.5
24-13	18.8	0.9	1.6	-0.5	-0.3	0.7
24-14	17.9	0.5	1.0	0.3	0.3	0.8
24-15	18.3	1.9	1.2	-0.1	0.2	2.1
24-16	17.9	0.4	1.8	-0.4	-0.2	0.9
24-17	19.3	0.6	3.1	-0.7	-0.5	1.0
24-18	18.3	0.4	3.8	-0.7	-0.3	1.7
24-19	18.7	0.8	-0.3	0.8	0.7	0.9
24-20	16.2	-0.5	0.5	-0.6	-0.3	0.9
MAX	20.2	1.9	3.8	0.8	0.7	2.1
MIN	14.9	-1.1	-1.0	-1.4	-0.8	-0.2
AVG	17.6	0.2	1.2	-0.5	-0.2	0.7
STD	1.6	0.7	1.3	0.6	0.4	0.6
Open	0	0	0	0	0	0
Tech:	BE	BE	MHB	MHB	BE	BE
EQUIP. ID	673	673	1669	1669	673	673
	1793	1793	266	266	1793	1793



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POWER LLCR DATA FILES

GROUP 3

21507817P

21507818P

21507819P

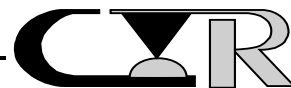
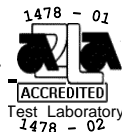
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21507821P

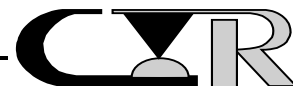
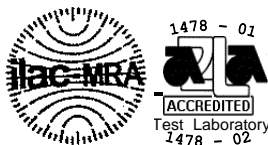
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21507823P

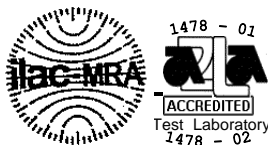
21507824P



Low Level Contact Resistance - Delta Values						
Project:	215078P				Spec: EIA 364 TP 23	
Customer:	Samtec			Subgroup: Group 3 No Lube		
Product:	LPHS-08-32-S-RT1-GP			File No.:	21507817P	
Description:	ASP-183823-01			Tech:	BE	
Open Circuit Voltage:	20mV			Current:	100mA	
Units:	milliohms					
Temp °C	21°C	21°C	22°C	22°C	21°C	21°C
R.H. %	32%	49%	34%	37%	37%	41%
Date:	16-Apr-15	21-Apr-15	29-Apr-15	30-Apr-15	7-May-15	8-May-15
Pos. ID	Initial	Durability	MFG 7 Days	1 X	MFG 7d	1X
		20X	Unmated		Mated	
17-21	0.21	0.00	0.01	0.01	0.04	0.02
17-22	0.21	0.00	0.02	0.01	0.03	0.12
17-23	0.21	0.01	-0.01	0.03	0.05	0.00
17-24	0.22	-0.02	-0.01	0.00	0.00	-0.01
MAX	0.22	0.01	0.02	0.03	0.05	0.12
MIN	0.21	-0.02	-0.01	0.00	0.00	-0.01
AVG	0.21	0.00	0.00	0.01	0.03	0.03
STD	0.01	0.01	0.01	0.01	0.02	0.06
Open	0	0	0	0	0	0
Tech:	BE	BE	MHB	MHB	BE	BE
EQUIP. ID	673	673	1669	1669	673	673
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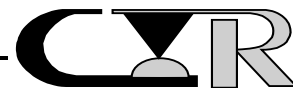
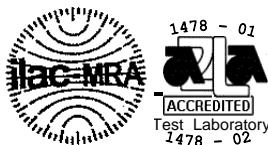
Low Level Contact Resistance - Delta Values						
Project:	215078P				Spec: EIA 364 TP 23	
Customer:	Samtec			Subgroup: Group 3 No Lube		
Product:	LPHS-08-32-S-RT1-GP			File No.:	21507818P	
Description:	ASP-183823-01			Tech:	BE	
Open Circuit Voltage:	20mV			Current:	100mA	
Units:	milliohms					
Temp °C	21°C	21°C	22°C	22°C	21°C	21°C
R.H. %	32%	49%	34%	37%	37%	41%
Date:	16-Apr-15	21-Apr-15	29-Apr-15	30-Apr-15	7-May-15	8-May-15
Pos. ID	Initial	Durability	MFG 7 Days	1 X	MFG 7d	1X
		20X	Unmated		Mated	
18-21	0.21	0.01	0.01	0.01	-0.02	0.03
18-22	0.23	-0.02	-0.02	0.00	0.01	0.20
18-23	0.19	0.03	0.05	0.05	0.06	0.15
18-24	0.23	0.03	0.05	0.05	0.03	0.01
MAX	0.23	0.03	0.05	0.05	0.06	0.20
MIN	0.19	-0.02	-0.02	0.00	-0.02	0.01
AVG	0.22	0.01	0.02	0.03	0.02	0.10
STD	0.02	0.02	0.04	0.03	0.03	0.09
Open	0	0	0	0	0	0
Tech:	BE	BE	MHB	MHB	BE	BE
EQUIP. ID	673	673	1669	1669	673	673
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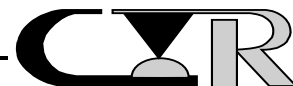
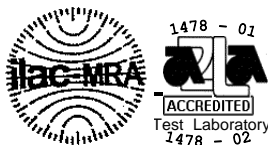
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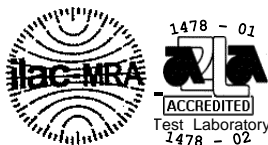
Low Level Contact Resistance - Delta Values						
Project:	215078P				Spec: EIA 364 TP 23	
Customer:	Samtec				Subgroup: Group 3 No Lube	
Product:	LPHS-08-32-S-RT1-GP				File No.:	21507819P
Description:	ASP-183823-01				Tech:	BE
Open Circuit Voltage:	20mV				Current:	100mA
Units:	milliohms					
Temp °C	21°C	21°C	22°C	22°C	21°C	21°C
R.H. %	32%	49%	34%	37%	37%	41%
Date:	16-Apr-15	21-Apr-15	29-Apr-15	30-Apr-15	7-May-15	8-May-15
Pos. ID	Initial	Durability	MFG 7 Days	1 X	MFG 7d	1X
		20X	Unmated		Mated	
19-21	0.21	-0.01	-0.01	-0.01	0.01	-0.01
19-22	0.22	-0.02	0.00	0.00	0.03	0.01
19-23	0.23	-0.02	-0.02	0.00	0.01	0.00
19-24	0.24	-0.02	0.00	-0.01	0.00	0.03
MAX	0.24	-0.01	0.00	0.00	0.03	0.03
MIN	0.21	-0.02	-0.02	-0.01	0.00	-0.01
AVG	0.22	-0.02	-0.01	-0.01	0.01	0.01
STD	0.01	0.00	0.01	0.00	0.01	0.02
Open	0	0	0	0	0	0
Tech:	BE	BE	MHB	MHB	BE	BE
EQUIP. ID	673	673	1669	1669	673	673
	1793	1793	266	266	1793	1793



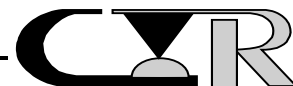
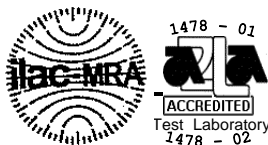
Low Level Contact Resistance - Delta Values						
Project:	215078P				Spec: EIA 364 TP 23	
Customer:	Samtec				Subgroup: Group 3 No Lube	
Product:	LPHS-08-32-S-RT1-GP				File No.:	21507820P
Description:	ASP-183823-01				Tech:	BE
Open Circuit Voltage:	20mV				Current:	100mA
Units:	milliohms					
Temp °C	21°C	21°C	22°C	22°C	21°C	21°C
R.H. %	32%	49%	34%	37%	37%	41%
Date:	16-Apr-15	21-Apr-15	29-Apr-15	30-Apr-15	7-May-15	8-May-15
Pos. ID	Initial	Durability	MFG 7 Days	1 X	MFG 7d	1X
		20X	Unmated		Mated	
20-21	0.19	0.03	0.09	0.07	0.04	0.02
20-22	0.22	0.00	0.04	-0.01	-0.01	0.00
20-23	0.24	0.02	-0.03	0.01	0.02	0.04
20-24	0.24	0.01	0.05	0.03	0.01	0.01
MAX	0.24	0.03	0.09	0.07	0.04	0.04
MIN	0.19	0.00	-0.03	-0.01	-0.01	0.00
AVG	0.22	0.01	0.04	0.03	0.02	0.02
STD	0.02	0.01	0.05	0.03	0.02	0.01
Open	0	0	0	0	0	0
Tech:	BE	BE	MHB	MHB	BE	BE
EQUIP. ID	673	673	1669	1669	673	673
	1793	1793	266	266	1793	1793



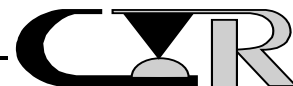
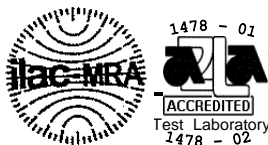
Low Level Contact Resistance - Delta Values						
Project:	215078P				Spec: EIA 364 TP 23	
Customer:	Samtec				Subgroup: Group 3 No Lube	
Product:	LPHS-08-32-S-RT1-GP				File No.:	21507821P
Description:	ASP-183823-01				Tech:	BE
Open Circuit Voltage:	20mV				Current:	100mA
Units:	milliohms					
Temp °C	21°C	21°C	22°C	22°C	21°C	21°C
R.H. %	32%	49%	34%	37%	37%	41%
Date:	16-Apr-15	21-Apr-15	29-Apr-15	30-Apr-15	7-May-15	8-May015
Pos. ID	Initial	Durability	MFG 7 Days	1 X	MFG 7d	1X
		20X	Unmated		Mated	
21-21	0.21	0.01	-0.01	0.02	0.01	-0.01
21-22	0.22	0.01	0.02	0.02	0.00	0.03
21-23	0.20	0.01	0.01	0.01	0.00	0.01
21-24	0.20	0.01	0.00	0.00	-0.05	0.00
MAX	0.22	0.01	0.02	0.02	0.01	0.03
MIN	0.20	0.01	-0.01	0.00	-0.05	-0.01
AVG	0.21	0.01	0.01	0.01	-0.01	0.01
STD	0.01	0.00	0.01	0.01	0.03	0.02
Open	0	0	0	0	0	0
Tech:	BE	BE	MHB	MHB	BE	BE
EQUIP. ID	673	673	1669	1669	673	673
	1793	1793	266	266	1793	1793



Low Level Contact Resistance - Delta Values						
Project:	215078P				Spec: EIA 364 TP 23	
Customer:	Samtec				Subgroup: Group 3 No Lube	
Product:	LPHS-08-32-S-RT1-GP				File No.:	21507822P
Description:	ASP-183823-01				Tech:	BE
Open Circuit Voltage:	20mV				Current:	100mA
Units:	milliohms					
Temp °C	21°C	21°C	22°C	22°C	21°C	21°C
R.H. %	32%	49%	34%	37%	37%	41%
Date:	16-Apr-15	21-Apr-15	29-Apr-15	30-Apr-15	7-May-15	8-May-15
Pos. ID	Initial	Durability	MFG 7 Days	1 X	MFG 7d	1X
		20X	Unmated		Mated	
22-21	0.21	-0.01	-0.01	0.00	0.00	0.01
22-22	0.22	0.01	0.01	-0.01	0.00	0.01
22-23	0.23	0.04	0.06	0.02	0.03	0.01
22-24	0.22	0.02	0.03	0.00	0.00	0.02
MAX	0.23	0.04	0.06	0.02	0.03	0.02
MIN	0.21	-0.01	-0.01	-0.01	0.00	0.01
AVG	0.22	0.02	0.02	0.00	0.01	0.01
STD	0.01	0.02	0.03	0.01	0.01	0.00
Open	0	0	0	0	0	0
Tech:	BE	BE	MHB	MHB	BE	BE
EQUIP. ID	673	673	1669	1669	673	673
	1793	1793	266	266	1793	1793



Low Level Contact Resistance - Delta Values						
Project:	215078P				Spec: EIA 364 TP 23	
Customer:	Samtec				Subgroup: Group 3 No Lube	
Product:	LPHS-08-32-S-RT1-GP				File No.:	21507823P
Description:	ASP-183823-01				Tech:	BE
Open Circuit Voltage:	20mV				Current:	100mA
Units:	milliohms					
Temp °C	21°C	21°C	22°C	22°C	21°C	21°C
R.H. %	32%	49%	34%	37%	37%	41%
Date:	16-Apr-15	21-Apr-15	29-Apr-15	30-Apr-15	7-May-15	8-May-15
Pos. ID	Initial	Durability	MFG 7 Days	1 X	MFG 7d	1X
		20X	Unmated		Mated	
23-21	0.21	-0.01	0.00	-0.02	-0.01	0.00
23-22	0.21	0.04	0.01	0.00	0.01	0.01
23-23	0.26	-0.03	0.00	0.00	0.00	-0.01
23-24	0.23	0.02	0.10	0.01	-0.03	0.05
MAX	0.26	0.04	0.10	0.01	0.01	0.05
MIN	0.21	-0.03	0.00	-0.02	-0.03	-0.01
AVG	0.23	0.01	0.03	0.00	-0.01	0.01
STD	0.02	0.03	0.05	0.01	0.02	0.03
Open	0	0	0	0	0	0
Tech:	BE	BE	MHB	MHB	BE	BE
EQUIP. ID	673	673	1669	1669	673	673
	1793	1793	266	266	1793	1793



Low Level Contact Resistance - Delta Values						
Project:	215078P				Spec: EIA 364 TP 23	
Customer:	Samtec				Subgroup: Group 3 No Lube	
Product:	LPHS-08-32-S-RT1-GP				File No.:	21507824P
Description:	ASP-183823-01				Tech:	BE
Open Circuit Voltage:	20mV				Current:	100mA
Units:	milliohms					
Temp °C	21°C	21°C	22°C	22°C	21°C	21°C
R.H. %	32%	49%	34%	37%	37%	41%
Date:	16-Apr-15	21-Apr-15	29-Apr-15	30-Apr-15	7-May-15	8-May-15
Pos. ID	Initial	Durability	MFG 7 Days	1 X	MFG 7d	1X
		20X	Unmated		Mated	
24-21	0.21	0.00	0.03	0.00	0.04	0.06
24-22	0.21	0.01	0.04	0.02	0.05	0.03
24-23	0.23	0.02	0.04	0.04	0.05	0.05
24-24	0.26	-0.01	0.00	-0.01	-0.05	0.00
MAX	0.26	0.02	0.04	0.04	0.05	0.06
MIN	0.21	-0.01	0.00	-0.01	-0.05	0.00
AVG	0.22	0.00	0.03	0.01	0.02	0.03
STD	0.02	0.01	0.02	0.02	0.04	0.03
Open	0	0	0	0	0	0
Tech:	BE	BE	MHB	MHB	BE	BE
EQUIP. ID	673	673	1669	1669	673	673
	1793	1793	266	266	1793	1793

