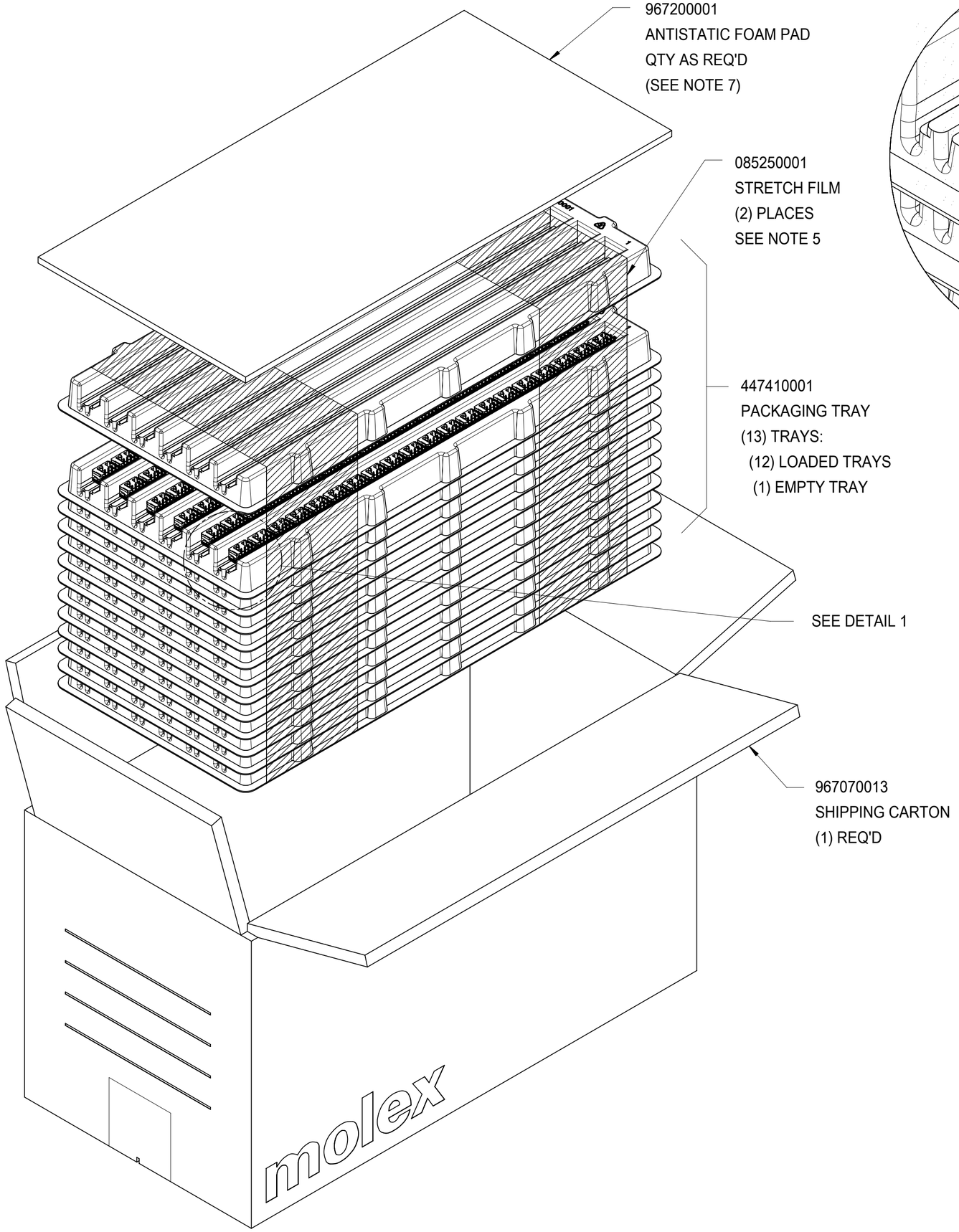
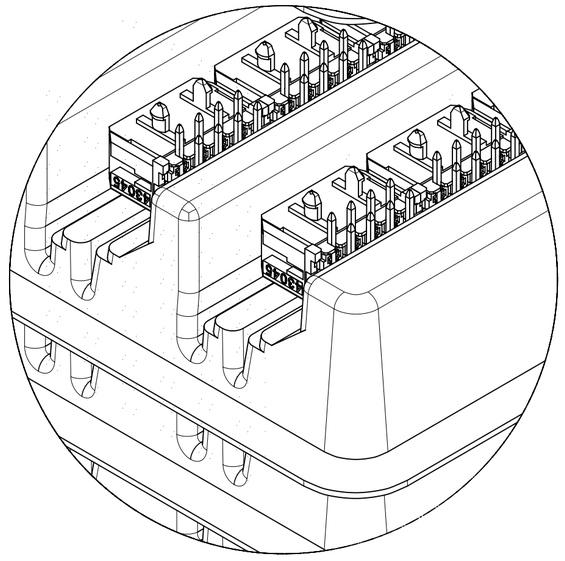
Molex 43045-0402 PDF

深圳创唯电子有限公司

http://www.molex-connect.com





DETAIL 1
SCALE 2:1

CKT SIZE	PARTS PER CHANNEL	PARTS PER TRAY	PARTS PER CARTON (SPQ)
2	44	264	3168
4	31	186	2232
6	24	144	1728
8	20	120	1440
10	17	102	1224
12	14	84	1008
14	13	78	936
16	11	66	792
18	10	60	720
20	9	54	648
22	8	48	576
24	8	48	576

PACKAGING INSTRUCTIONS:

1. PRIMARY SHIPPING CARTON TO BE P/N SPECIFIED HAVING A 275 POUND BURST RATING. PREPARE CARTONS BY SEALING BOTTOM FLAPS WITH 2-INCH WIDE CLEAR ADHESIVE TAPE EXTENDING 2 INCHES MINIMUM UP EACH END OF CARTON.
2. LOAD HEADERS INTO TRAY CHANNELS WITH PINS UP IN ORIENTATION SHOWN IN DETAIL 1.
3. TRAYS TO BE LOADED PER QUANTITIES SPECIFIED IN CHART. 12 TRAYS TO BE FULLY LOADED. TOP 13TH TRAY IS EMPTY.
4. TRAYS TO BE STACKED IN THE SAME ORIENTATION.
5. STACKED TRAYS TO BE BUNDLED WITH 5-INCH WIDE STRETCH FILM WRAPPED 3 TIMES AROUND EACH END OF STACK AS SHOWN.
6. BUNDLED TRAYS TO BE INSERTED INTO CARTON.
7. ANTISTAT FOAM PAD TO BE ADDED IN BOTTOM OF CARTON BELOW TRAY BUNDLE AND ADDED ON TOP OF TRAY BUNDLE AS REQUIRED TO FILL CARTON. NOTE: QUANTITY OF FOAM FILLER PADS USED SHOULD BE ENOUGH TO FILL CARTON BUT NOT CAUSE TOP OF CARTON TO BULGE WHEN FLAPS ARE CLOSED. FOAM PADS ARE ALSO TO BE ADDED ON END SIDES OF CARTON WHEN PARTS ARE PACKAGED IN PET TRAYS (NOT REQUIRED/OPTIONAL FOR PVC TRAYS).
8. CLOSE AND SEAL LONG FLAPS OF CARTON WITH 2-INCH WIDE ADHESIVE TAPE THAT SHOULD EXTEND A MINIMUM OF 2 INCHES DOWN SIDE OF CARTON.
9. APPLY APPROPRIATE LABELS FOR PRODUCT ID, SHIPPING AND SAFETY AGENCY.

SYMBOLS
= 0
= 0
= 0
= 0
= 0
= 0
= 0
= 0
= 0

DIMENSION UNITS: MM
SCALE: 1:2

GENERAL TOLERANCES (UNLESS SPECIFIED)

	MM	INCH
4 PLACES	±	±
3 PLACES	±	±
2 PLACES	±	±
1 PLACE	±	±
0 PLACES	±	±
ANGULAR TOL	± °	

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

CURRENT REV DESC: UPDATE NOTE 7

EC NO: 603708
DRWN: MPETROVICH 2018/08/27
CHK'D: SSOUSEK 2018/09/28
APPR: FSMITH 2018/10/02

INITIAL REVISION:
DRWN: RFC_PLMIMP 2017/11/10
APPR: REDGLEY 2001/03/12

THIRD ANGLE PROJECTION | DRAWING: C-SIZE | SERIES: 70873

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MICROFIT 43045 HEADER PK SPEC - DR, RA
DUAL ROW, RIGHT ANGLE

PACKAGING DESIGN DRAWING

DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION
PK-70873-0313	PDD	001	M

MATERIAL NUMBER	CUSTOMER	SHEET NUMBER
NA	GENERAL MARKET	1 OF 1

DOCUMENT STATUS	P1	RELEASE DATE	2018/10/02 23:26:43

FORMAT: Eng-lega-master-tb-prod-C
REVISION: D
DATE: 2018/01/18

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TEST SUMMARY

Micro-Fit (3.0)
Connector System
(Wire to Wire & Wire to Board)

1.0 SCOPE

This Test Specification covers the 3.00 mm (.118 inch) centerline (pitch) connector series terminated with 20-30 AWG wire using crimp technology.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME, SERIES, AND PART NUMBER(S)

Micro-Fit (3.0) Receptacle Series : 43025, 43645, 44133 (BMI)
Micro-Fit (3.0) Plug Series : 43020, 43640, 44300 (BMI)
Micro-Fit (3.0) Right Angle & Vertical Header Series : 43045, 43650, 44067
Micro-Fit (3.0) Compliant Pin Vertical Header Series : 44914
Micro-Fit (3.0) Female Crimp Terminal Series : 43030
Micro-Fit (3.0) Male Crimp Terminal Series : 43031
Micro-Fit (3.0) Female Crimp Terminal with Lubricant : 45773

2.1.1 SERIES NUMBERS TESTED

Micro-Fit (3.0) Receptacle : 43025
Micro-Fit (3.0) Plug : 43020
Micro-Fit (3.0) Right Angle & Vertical Headers : 43045
Micro-Fit (3.0) Female Crimp Terminal : 43030
Micro-Fit (3.0) Male Crimp Terminal : 43031

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See the appropriate sales drawings for information on dimensions, materials, plating, and markings.

2.3 PRODUCT SPECIFICATION TITLE AND DOCUMENT NUMBER

Product Specification Micro-Fit Dual Row Connectors
Document Number: PS-43045
Product Specification Micro-Fit Single Row Connectors
Document Number: PS-43650
Product Specification Micro-Fit (3.0) BMI Floating Connector System
Document Number: PS-44300-001

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

3.1 TESTING PROCEDURES AND SEQUENCES

EIA-364-1000.01

3.2 OTHER DOCUMENTS AND SPECIFICATIONS
None

4.0 QUALIFICATION
Laboratory conditions and sample selection are in accordance with **EIA-364**.

5.0 PERFORMANCE RESULTS
5.1 ELECTRICAL PERFORMANCE RESULTS

WIRE TO WIRE CONFIGURATION

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
1A	CONTACT RESISTANCE (LOW LEVEL)	Initial **	10 milliohms MAXIMUM	**19.95** mΩ	**19.74** mΩ	**20.40** mΩ
		After Durability Δ mΩ	20 milliohms MAXIMUM	**-0.23** mΩ	**-0.03** mΩ	**0.67** mΩ
		After Temperature Life Δ mΩ	20 milliohms MAXIMUM	**0.38** mΩ	**0.08** mΩ	**1.01** mΩ
		After Reseating Δ mΩ	20 milliohms MAXIMUM	**0.25** mΩ	**-0.53** mΩ	**1.32** mΩ

NOTE : ****APPROXIMATELY 16.6 mΩ OF THE MEASUREMENT VALUE IS ATTRIBUTED TO THE BULK RESISTANCE OF THE 13 INCHES OF WIRE USED IN SAMPLE PREPARATION.

WIRE TO BOARD CONFIGURATION

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
1B	CONTACT RESISTANCE (LOW LEVEL)	Initial	10 milliohms MAXIMUM	**4.75** mΩ	**4.55** mΩ	**4.98** mΩ
		After Durability Δ mΩ	20 milliohms MAXIMUM	**-0.23** mΩ	**-0.03** mΩ	**0.67** mΩ
		After Temperature Life Δ mΩ	20 milliohms MAXIMUM	**0.38** mΩ	**0.08** mΩ	**1.01** mΩ
		After Reseating Δ mΩ	20 milliohms MAXIMUM	**0.25** mΩ	**-0.53** mΩ	**1.32** mΩ

NOTE : SEE APPENDIX "A" FOR TEST SEQUENCE DESCRIPTION.

5.1 ELECTRICAL PERFORMANCE RESULTS (continued)

WIRE TO WIRE CONFIGURATION

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
2A	Contact Resistance (Low Level)	Initial **	10 milliohms MAXIMUM	**20.01** mΩ	**19.59** mΩ	**23.29** mΩ
		After Durability Δ mΩ	20 milliohms MAXIMUM	**0.19** mΩ	**-0.02** mΩ	**0.64** mΩ
		After Thermal Shock Δ mΩ	20 milliohms MAXIMUM	**0.34** mΩ	**0.08** mΩ	**0.74** mΩ
		After Cyclic Humidity Δ mΩ	20 milliohms MAXIMUM	**0.62** mΩ	**0.14** mΩ	**1.77** mΩ
		After Reseating Δ mΩ	20 milliohms MAXIMUM	**0.61** mΩ	**0.11** mΩ	**3.09** mΩ

NOTE : **APPROXIMATELY 16.6 mΩ OF THE MEASUREMENT VALUE IS ATTRIBUTED TO THE BULK RESISTANCE OF THE 13 INCHES OF WIRE USED IN SAMPLE PREPARATION.

WIRE TO BOARD CONFIGURATION

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
2B	Contact Resistance (Low Level)	Initial	10 milliohms MAXIMUM	**4.75** mΩ	**4.55** mΩ	**4.98** mΩ
		After Durability Δ mΩ	20 milliohms MAXIMUM	**0.42** mΩ	**-0.02** mΩ	**2.03** mΩ
		After Thermal Shock Δ mΩ	20 milliohms MAXIMUM	**1.56** mΩ	**0.25** mΩ	**5.71** mΩ
		After Cyclic Humidity Δ mΩ	20 milliohms MAXIMUM	**1.28** mΩ	**0.15** mΩ	**4.60** mΩ
		After Reseating Δ mΩ	20 milliohms MAXIMUM	**2.19** mΩ	**0.23** mΩ	**8.04** mΩ

NOTE : SEE APPENDIX "A" FOR TEST SEQUENCE DESCRIPTION

5.1 ELECTRICAL PERFORMANCE RESULTS (continued)

WIRE TO BOARD CONFIGURATION – 2 CIRCUIT VERSION

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
3A	Contact Resistance (Low Level)	Initial **	10 milliohms MAXIMUM	**10.26** mΩ	**10.17** mΩ	**10.46** mΩ
		After Durability Δ mΩ	20 milliohms MAXIMUM	**0.75** mΩ	**0.16** mΩ	**1.57** mΩ
		After Temperature Life Pre-Conditioned Δ mΩ	20 milliohms MAXIMUM	**1.88** mΩ	**0.58** mΩ	**3.77** mΩ
		After Vibration Δ mΩ	20 milliohms MAXIMUM	**1.28** mΩ	**0.15** mΩ	**4.60** mΩ
			No Discontinuity	Discontinuity < 1 microsecond		

NOTE : ** APPROXIMATELY 7.8 mΩ OF THE MEASUREMENT VALUE IS ATTRIBUTED TO THE BULK RESISTANCE OF THE 6 INCHES OF WIRE USED IN SAMPLE PREPARATION.

WIRE TO BOARD CONFIGURATION –12 CIRCUIT VERSION

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
3B	Contact Resistance (Low Level)	Initial **	10 milliohms MAXIMUM	**10.24** mΩ	**9.85** mΩ	**10.52** mΩ
		After Durability Δ mΩ	20 milliohms MAXIMUM	**0.41** mΩ	**0.14** mΩ	**2.13** mΩ
		After Temperature Life Pre-Conditioned Δ mΩ	20 milliohms MAXIMUM	**0.81** mΩ	**0.16** mΩ	**3.68** mΩ
		After Vibration Δ mΩ	20 milliohms MAXIMUM	**1.14** mΩ	**0.25** mΩ	**3.56** mΩ
			No Discontinuity	Discontinuity < 1 microsecond		

NOTES : ** APPROXIMATELY 7.8 mΩ OF THE MEASUREMENT VALUE IS ATTRIBUTED TO THE BULK RESISTANCE OF THE 6 INCHES OF WIRE USED IN SAMPLE PREPARATION.

SEE APPENDIX "A" FOR TEST SEQUENCE DESCRIPTION

5.1 ELECTRICAL PERFORMANCE RESULTS (continued)

WIRE TO WIRE CONFIGURATION

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
4A	Contact Resistance (Low Level)	Initial **	10 milliohms MAXIMUM	**20.07** mΩ	**19.95** mΩ	**20.50** mΩ
		After Durability Δ mΩ	20 milliohms MAXIMUM	**0.31** mΩ	**-0.02** mΩ	**0.72** mΩ
		After Temperature Life Pre-Conditioned Δ mΩ	20 milliohms MAXIMUM	**0.34** mΩ	**0.07** mΩ	**0.97** mΩ
		Thermal Cycling 167 Hours Δ mΩ	20 milliohms MAXIMUM	**0.42** mΩ	**0.10** mΩ	**2.01** mΩ
		Thermal Cycling 334 Hours Δ mΩ	20 milliohms MAXIMUM	**0.41** mΩ	**-0.06** mΩ	**1.03** mΩ
		Thermal Cycling 500 Hours Δ mΩ	20 milliohms MAXIMUM	**0.64** mΩ	**0.03** mΩ	**2.79** mΩ
		After Reseating Δ mΩ	20 milliohms MAXIMUM	**0.54** mΩ	**0.14** mΩ	**2.45** mΩ

NOTES : ** APPROXIMATELY 16.6 mΩ OF THE MEASUREMENT VALUE IS ATTRIBUTED TO THE BULK RESISTANCE OF THE 13 INCHES OF WIRE USED IN SAMPLE PREPARATION.

SEE APPENDIX "A" FOR TEST SEQUENCE DESCRIPTION

5.1 ELECTRICAL PERFORMANCE RESULTS (continued)

WIRE TO BOARD CONFIGURATION

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
4B	Contact Resistance (Low Level)	Initial	10 milliohms MAXIMUM	**4.78** mΩ	**4.56** mΩ	**5.53** mΩ
		After Durability Δ mΩ	20 milliohms MAXIMUM	**0.48** mΩ	**0.06** mΩ	**2.35** mΩ
		After Temperature Life Pre-Conditioned Δ mΩ	20 milliohms MAXIMUM	**1.07** mΩ	**0.13** mΩ	**5.80** mΩ
		Thermal Cycling 167 Hours Δ mΩ	20 milliohms MAXIMUM	**1.38** mΩ	**0.30** mΩ	**4.68** mΩ
		Thermal Cycling 334 Hours Δ mΩ	20 milliohms MAXIMUM	**1.63** mΩ	**0.31** mΩ	**5.17** mΩ
		Thermal Cycling 500 Hours Δ mΩ	20 milliohms MAXIMUM	**3.04** mΩ	**0.69** mΩ	**8.51** mΩ
		After Reseating Δ mΩ	20 milliohms MAXIMUM	**3.48** mΩ	**0.41** mΩ	**8.94** mΩ

NOTE : SEE APPENDIX "A" FOR TEST SEQUENCE DESCRIPTION

5.1 ELECTRICAL PERFORMANCE RESULTS (continued)

ITEM	DESCRIPTION	WIRE GAUGE	REQUIREMENT	AMPERAGE
5	Temperature Rise & Current Cycling	30 AWG	30°C Max. Temp. Rise	2.5 Amps
		26 AWG	30°C Max. Temp. Rise	3.0 Amps
		24 AWG	30°C Max. Temp. Rise	4.0 Amps
		20 AWG	30°C Max. Temp. Rise	5.5 Amps

5.2 MECHANICAL PERFORMANCE RESULTS

ITEM	DESCRIPTION	Wire Gauge	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
6	Wire Pullout Force (Newtons)	20 AWG	57.8 N Minimum	127.4	117.5	134.7
		22 AWG	35.6 N Minimum	86.1	80.2	90.4
		24 AWG	22.2 N Minimum	53.6	44.7	58.08
		26 AWG	13.3 N Minimum	36.1	33.8	38.3
		28 AWG	8.9 N Minimum	21.1	18.1	23.2
		30 AWG	6.6 N Minimum	18.2	13.5	24.6

ITEM	DESCRIPTION	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
7	Contact Normal Force (grams)	275 g Min	331 g	322 g	343 g

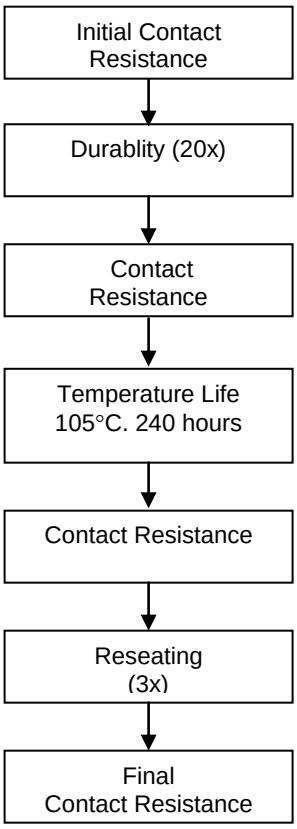
APPENDIX A

TEST SEQUENCES

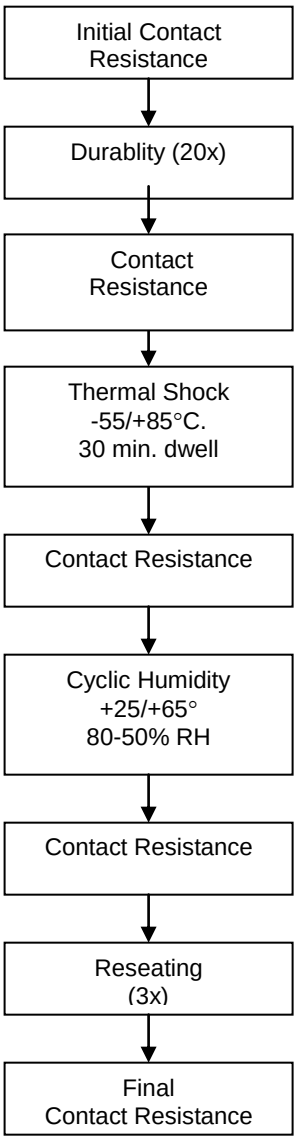
TEST SUMMARY

A.1 TEST SEQUENCES

SEQUENCE 1
1A Wire to Wire
1B Wire to Board

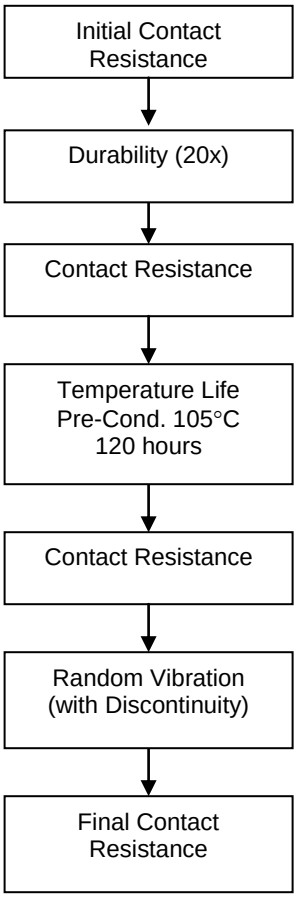


SEQUENCE 2
2A Wire to Wire
2B Wire to Board

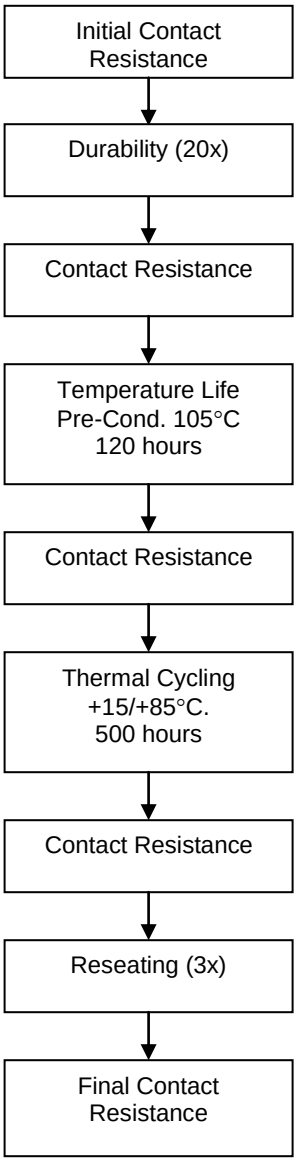


A.1 TEST SEQUENCES (continued)

SEQUENCE 3
3A Wire to Wire
3B Wire to Board



SEQUENCE 4
4A Wire to Wire
4B Wire to Board



TEST SUMMARY

Micro-Fit (3.0)
Connector System
(Wire to Wire & Wire to Board – Gold Plating)

1.0 SCOPE
This Test Specification covers the 3.00 mm (.118 inch) centerline (pitch) connector series terminated with 20-30 AWG wire using crimp technology and gold plating on the contact interfaces.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME, SERIES, AND PART NUMBER(S)
Micro-Fit (3.0) Receptacle Series : 43025, 43645, 44133 (BMI)
Micro-Fit (3.0) Plug Series : 43020, 43640, 44300 (BMI)
Micro-Fit (3.0) Right Angle & Vertical Header Series : 43045, 43650, 44067
Micro-Fit (3.0) Compliant Pin Vertical Header Series : 44914
Micro-Fit (3.0) Female Crimp Terminal Series : 43030
Micro-Fit (3.0) Male Crimp Terminal Series : 43031
Micro-Fit (3.0) Female Crimp Terminal with Lubricant : 45773

2.1.1 SERIES NUMBERS TESTED
Micro-Fit (3.0) Receptacle : 43025
Micro-Fit (3.0) Plug : 43020
Micro-Fit (3.0) Right Angle & Vertical Headers : 43045
Micro-Fit (3.0) Female Crimp Terminal : 43030
Micro-Fit (3.0) Male Crimp Terminal : 43031
Micro-Fit (3.0) Female Crimp Terminal with Lubricant : 45773

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS
See the appropriate sales drawings for information on dimensions, materials, plating, and markings.

2.3 PRODUCT SPECIFICATION TITLE AND DOCUMENT NUMBER
Product Specification Micro-Fit Dual Row Connectors
Document Number: PS-43045
Product Specification Micro-Fit Single Row Connectors
Document Number: PS-43650
Product Specification Micro-Fit (3.0) BMI Floating Connector System
Document Number: PS-44300-001

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

3.1 TESTING PROCEDURES, SEQUENCES, AND SPECIFICATIONS

NPS-25298-2
EIA-364-65A
EIA-364-1000.01
MIL-STD-202 METHOD 213
MIL-STD-202 METHOD 204

3.2 OTHER DOCUMENTS AND SPECIFICATIONS

None

4.0 QUALIFICATION

Laboratory conditions and sample selection are in accordance with **EIA-364 and NPS-25298-2**.

5.0 PERFORMANCE RESULTS

5.1 ELECTRICAL PERFORMANCE RESULTS

WIRE TO WIRE CONFIGURATION

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
1A	CONTACT RESISTANCE (LOW LEVEL)	Initial **	---	**17.84** mΩ	**17.69** mΩ	**18.34** mΩ
		After Vibration Δ mΩ	10 milliohms MAXIMUM	**0.05** mΩ	**-0.49** mΩ	**0.46** mΩ
			No Discontinuity	Discontinuity < 1 microsecond		
		After Mechanical Shock Δ mΩ	10 milliohms MAXIMUM	**0.12** mΩ	**-0.41** mΩ	**0.48** mΩ
			No Discontinuity	Discontinuity < 1 microsecond		

NOTE : ** A PORTION OF THE MEASUREMENT VALUE IS ATTRIBUTED TO THE BULK RESISTANCE OF THE WIRE USED IN SAMPLE PREPARATION.

WIRE TO BOARD CONFIGURATION

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
1B	CONTACT RESISTANCE (LOW LEVEL)	Initial	---	**9.85** mΩ	**9.66** mΩ	**10.02** mΩ
		After Vibration Δ mΩ	10 milliohms MAXIMUM	**-0.07** mΩ	**-0.21** mΩ	**0.00** mΩ
			No Discontinuity	Discontinuity < 1 microsecond		
		After Mechanical Shock Δ mΩ	10 milliohms MAXIMUM	**-0.02** mΩ	**-0.15** mΩ	**0.09** mΩ
			No Discontinuity	Discontinuity < 1 microsecond		

NOTE : SEE APPENDIX "A" FOR TEST SEQUENCE "1" DESCRIPTION

5.1 ELECTRICAL PERFORMANCE RESULTS (continued)

WIRE TO WIRE CONFIGURATION

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
2A	Contact Resistance (Low Level)	Initial **	---	**17.84** mΩ	**17.70** mΩ	**17.98** mΩ
		After Thermal Shock Δ mΩ	10 milliohms MAXIMUM	**0.05** mΩ	**-0.02** mΩ	**0.21** mΩ
		After Cyclic Humidity Δ mΩ	10 milliohms MAXIMUM	**0.04** mΩ	**-0.08** mΩ	**0.64** mΩ

NOTE : ** A PORTION OF THE MEASUREMENT VALUE IS ATTRIBUTED TO THE BULK RESISTANCE OF THE WIRE USED IN SAMPLE PREPARATION.

WIRE TO BOARD CONFIGURATION

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
2B	Contact Resistance (Low Level)	Initial	---	**5.01** mΩ	**4.83** mΩ	**5.36** mΩ
		After Thermal Shock Δ mΩ	10 milliohms MAXIMUM	**-0.01** mΩ	**-0.15** mΩ	**0.16** mΩ
		After Cyclic Humidity Δ mΩ	10 milliohms MAXIMUM	**-0.02** mΩ	**-0.15** mΩ	**0.19** mΩ

ITEM 2C AND 2D:

ALL OF THE SAMPLES USED IN THE SEQUENCE "2" (GROUP 2) INSULATION RESISTANCE AND DIELECTRIC WITHSTANDING VOLTAGE TESTING PASSED WITHOUT FAILURE (WIRE TO WIRE AND WIRE TO BOARD).

NOTE : SEE APPENDIX "A" FOR TEST SEQUENCE "2" DESCRIPTION

WIRE TO WIRE CONFIGURATION

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
3A	Contact Resistance (Low Level)	Initial **	---	**17.84** mΩ	**17.64** mΩ	**19.99** mΩ
		After Thermal Aging Δ mΩ	10 milliohms MAXIMUM	**0.07** mΩ	**-1.09** mΩ	**0.16** mΩ

NOTE : ** A PORTION OF THE MEASUREMENT VALUE IS ATTRIBUTED TO THE BULK RESISTANCE OF THE WIRE USED IN SAMPLE PREPARATION.

5.1 ELECTRICAL PERFORMANCE RESULTS (continued)

WIRE TO BOARD CONFIGURATION

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
3B	Contact Resistance (Low Level)	Initial	---	**4.98** mΩ	**4.87** mΩ	**5.20** mΩ
		After Thermal Aging Δ mΩ	10 milliohms MAXIMUM	**0.03** mΩ	**-0.03** mΩ	**0.10** mΩ

SEE APPENDIX "A" FOR TEST SEQUENCE "3" DESCRIPTION

43030 FEMALE CRIMP TERMINAL

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
4A Lot 1	Contact Resistance (Low Level)	Initial	---	**3.27** mΩ	**3.15** mΩ	**3.41** mΩ
		After Thermal Age Δ mΩ	10 milliohms MAXIMUM	**0.02** mΩ	**-0.01** mΩ	**0.04** mΩ
		After Tensile Strength Δ mΩ	10 milliohms MAXIMUM	**0.02** mΩ	**-0.02** mΩ	**0.04** mΩ

43031 MALE CRIMP TERMINAL

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
4B Lot 1	Contact Resistance (Low Level)	Initial	---	**3.31** mΩ	**3.17** mΩ	**3.40** mΩ
		After Thermal Age Δ mΩ	10 milliohms MAXIMUM	**0.02** mΩ	**0.00** mΩ	**0.04** mΩ
		After Tensile Strength Δ mΩ	10 milliohms MAXIMUM	**0.02** mΩ	**0.00** mΩ	**0.05** mΩ

NOTE : SEE APPENDIX "A" FOR TEST SEQUENCE "4" DESCRIPTION

5.1 ELECTRICAL PERFORMANCE RESULTS (continued)

43030 FEMALE CRIMP TERMINAL

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
4A Lot 2	Contact Resistance (Low Level)	Initial	---	**3.45** mΩ	**3.24** mΩ	**3.74** mΩ
		After Thermal Age Δ mΩ	10 milliohms MAXIMUM	**0.00** mΩ	**-0.01** mΩ	**0.02** mΩ
		After Gas Tightness Δ mΩ	10 milliohms MAXIMUM	**0.01** mΩ	**0.00** mΩ	**0.05** mΩ

43031 MALE CRIMP TERMINAL

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
4B Lot 2	Contact Resistance (Low Level)	Initial	---	**3.48** mΩ	**3.25** mΩ	**3.73** mΩ
		After Thermal Age Δ mΩ	10 milliohms MAXIMUM	**0.01** mΩ	**-0.01** mΩ	**0.03** mΩ
		After Gas Tightness Δ mΩ	10 milliohms MAXIMUM	**0.02** mΩ	**-0.01** mΩ	**0.05** mΩ

NOTE : SEE APPENDIX "A" FOR TEST SEQUENCE "4" DESCRIPTION

5.1 ELECTRICAL PERFORMANCE RESULTS (continued)

NOTE: The following Mixed Flowing Gas Testing results are for the MicroFit Female Crimp Terminal 45773 series (43030 series terminal with environmental lube applied).

WIRE TO WIRE CONFIGURATION

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
5A	Contact Resistance (Low Level)	Initial **	---	**18.16** mΩ	**18.03** mΩ	**18.59** mΩ
		After Durability Δ mΩ	10 milliohms MAXIMUM	**-0.12** mΩ	**-0.67** mΩ	**0.03** mΩ
		After Unmated 5 days Δ mΩ	10 milliohms MAXIMUM	**-0.05** mΩ	**-0.57** mΩ	**0.65** mΩ
		After Unmated 10 days Δ mΩ	10 milliohms MAXIMUM	**0.05** mΩ	**-1.10** mΩ	**1.05** mΩ
		After Mated 15 days Δ mΩ	10 milliohms MAXIMUM	**0.04** mΩ	**-0.12** mΩ	**0.24** mΩ
		After Mated 20 days Δ mΩ	10 milliohms MAXIMUM	**-0.01** mΩ	**-0.99** mΩ	**2.57** mΩ
		After Durability Δ mΩ	10 milliohms MAXIMUM	**-0.22** mΩ	**-2.58** mΩ	**0.50** mΩ

NOTE : ** A PORTION OF THE MEASUREMENT VALUE IS ATTRIBUTED TO THE BULK RESISTANCE OF THE WIRE USED IN SAMPLE PREPARATION.

WIRE TO BOARD CONFIGURATION

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
5B	Contact Resistance (Low Level)	Initial	---	**5.24** mΩ	**5.09** mΩ	**5.42** mΩ
		After Durability Δ mΩ	10 milliohms MAXIMUM	**-0.01** mΩ	**-0.32** mΩ	**0.24** mΩ
		After Unmated 5 days Δ mΩ	10 milliohms MAXIMUM	**0.03** mΩ	**-0.30** mΩ	**1.03** mΩ
		After Unmated 10 days Δ mΩ	10 milliohms MAXIMUM	**0.00** mΩ	**-0.36** mΩ	**0.18** mΩ
		After Mated 15 days Δ mΩ	10 milliohms MAXIMUM	**0.09** mΩ	**-0.33** mΩ	**0.58** mΩ
		After Mated 20 days Δ mΩ	10 milliohms MAXIMUM	**0.04** mΩ	**-0.29** mΩ	**0.42** mΩ
		After Durability Δ mΩ	10 milliohms MAXIMUM	**0.11** mΩ	**-0.11** mΩ	**0.39** mΩ

NOTE : SEE APPENDIX "A" FOR TEST SEQUENCE "5" DESCRIPTION

5.2 MECHANICAL PERFORMANCE RESULTS

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
3C	Contact Normal Force (grams)	Initial	275 g Min	**443** g	**413** g	**466** g
		After Thermal Age	275 g Min	**292** g	**285** g	**297** g

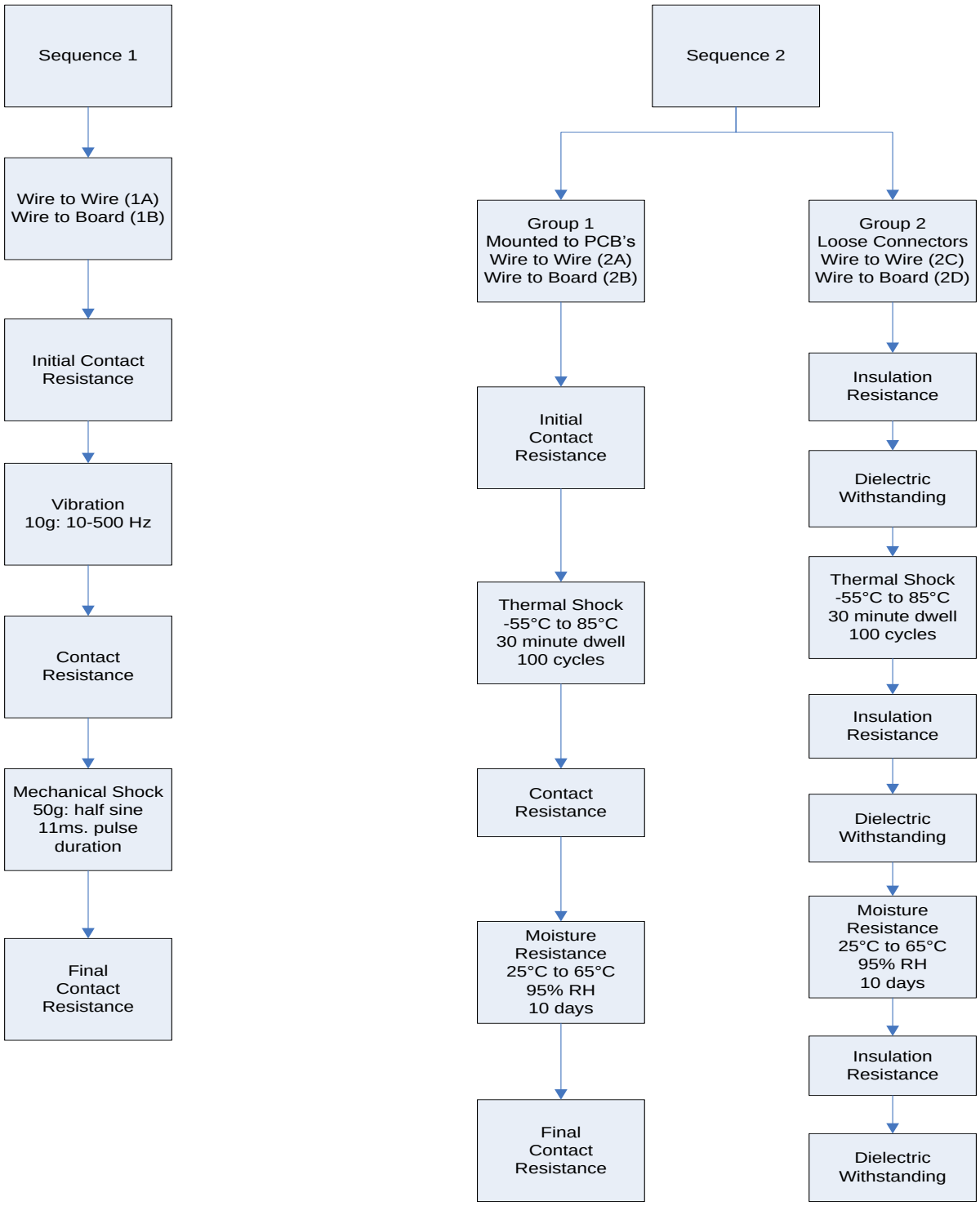
NOTE : SEE APPENDIX "A" FOR TEST SEQUENCE "3" DESCRIPTION

APPENDIX A

TEST SEQUENCES

TEST SUMMARY

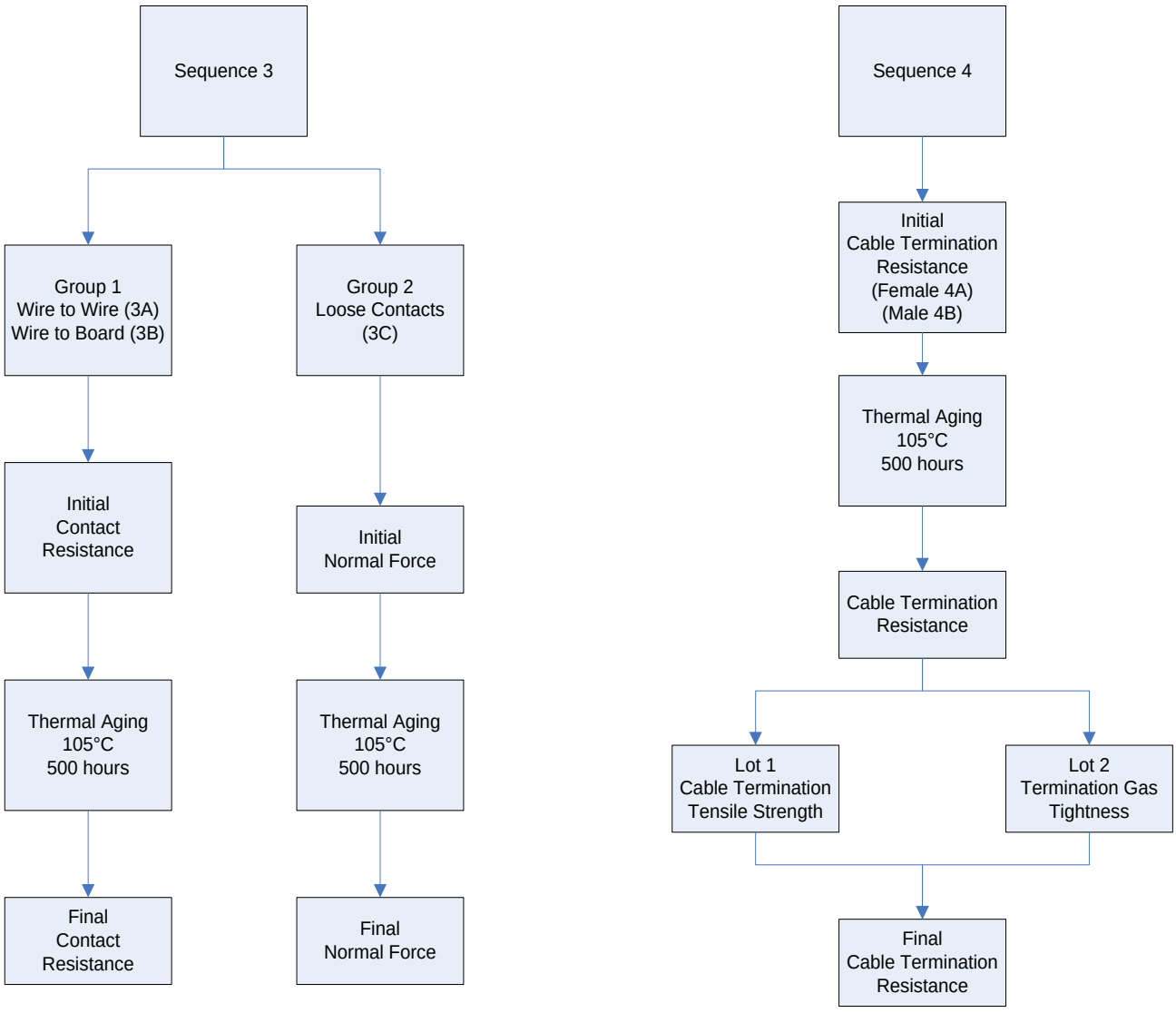
A.1 TEST SEQUENCES



REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
A1	EC No: **109530** DATE: **2016 / 10 /19**	**TEST SUMMARY** **MICRO-FIT (3.0)** **DUAL ROW CONNECTORS (GOLD)**	**9** of **11**

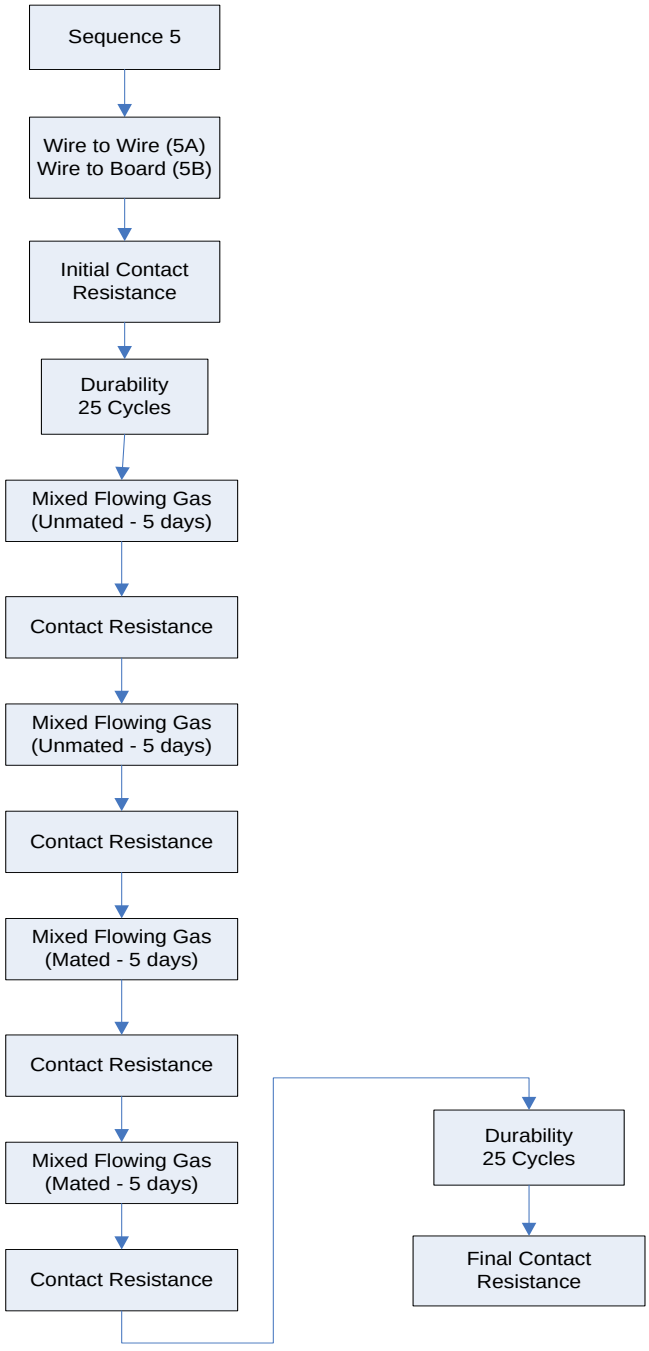
DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
TS-43045-002	**JDFOX**	**SSOUSEK**	**FSMITH**

A.1 TEST SEQUENCES (continued)



TEST SUMMARY

A.1 TEST SEQUENCES (continued)

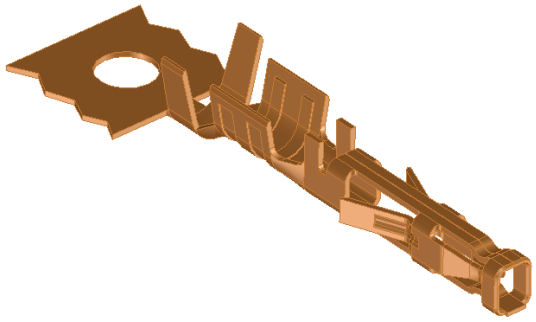


REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
A1	EC No: 109530 DATE: 2016 / 10 /19	TEST SUMMARY MICRO-FIT (3.0) DUAL ROW CONNECTORS (GOLD)	11 of 11

DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
TS-43045-002	JDFOX	SSOUSEK	FSMITH

TEST SUMMARY

LOW FORCE MICRO-FIT SERIES (46235)



1.0 SCOPE

This Test Summary covers the 3.00 mm (.118 inch) centerline (pitch) receptacles terminated with 46235 low force crimp terminals when mated with either printed circuit board (PCB) headers or plugs terminated with 20 to 30 AWG wire using crimp technology.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME, SERIES, AND PART NUMBER(S)

Micro-Fit (3.0) Receptacle Series : 43025, 43645, 44133 (BMI)
Micro-Fit (3.0) Plug Series : 43020, 43640, 44300 (BMI)
Micro-Fit (3.0) Right Angle & Vertical Header Series : 43045, 43650, 44067
Micro-Fit (3.0) Compliant Pin Vertical Header Series : 44914
Micro-Fit (3.0) Female Crimp Terminal Series : 46235
Micro-Fit (3.0) Male Crimp Terminal Series : 43031

2.1.1 SERIES NUMBERS TESTED

Micro-Fit (3.0) Receptacle : 43025
Micro-Fit (3.0) Plug : 43020
Micro-Fit (3.0) Right Angle & Vertical Headers : 43045
Micro-Fit (3.0) Female Crimp Terminal : 46235
Micro-Fit (3.0) Male Crimp Terminal : 43031

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

Refer to the appropriate sales drawings for information on dimensions, materials, platings and markings.

2.3 PRODUCT SPECIFICATION TITLE AND DOCUMENT NUMBER

Title: Product Specification for Micro-fit Low Mate Force Connector System
Document No.: PS-46235-001

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

3.1 TESTING SEQUENCES AND PROCEDURES

Reference Appendix 1

3.2 OTHER DOCUMENTS AND SPECIFICATIONS

SD-46235-001
PS-46235-001

4.0 QUALIFICATION

Laboratory conditions and sample selection are in accordance with EIA-364.

5.0 PERFORMANCE

5.1 ELECTRICAL/ENVIRONMENTAL PERFORMANCE RESULTS

(Note that measured LLCR values are for one mated interface)

DESCRIPTION	WIRE GAUGE	REQUIREMENT	AMPERAGE
Temperature Rise & Current Cycling	30 awg	30° C Max. Temperature Rise	2.5 amps (2 circuit)
	26 awg	30° C Max. Temperature Rise	3.0 amps (2 circuit)
	24 awg	30° C Max. Temperature Rise	4.0 amps (2 circuit)
	20 awg	30° C Max. Temperature Rise	5.5 amps (2 circuit)

5.1 ELECTRICAL/ENVIRONMENTAL PERFORMANCE RESULTS (cont)

(Note that measured LLCR values are for one mated interface)

WIRE TO BOARD						
ITEM	**DESCRIPTION**	**TREATMENT**	**REQUIREMENT**	**MEAN**	**MINIMUM**	**MAXIMUM**
GROUP 1	Contact Resistance (Low Level)	Initial	13.0 mΩ Nominal no limit set	**12.83** mΩ	**12.03** mΩ	**13.28** mΩ
		After Initial Durability (Preconditioning) (25 cycles)	20 mΩ MAXIMUM*	**0.03** mΩ	**-0.40** mΩ	**0.63** mΩ
		After Temp Life (240 hrs. @ 105°C)	20 mΩ MAXIMUM*	**0.06** mΩ	**-0.39** mΩ	**0.61** mΩ
		After Reseating (3x M/U)	20 mΩ MAXIMUM*	**0.07** mΩ	**-0.32** mΩ	**0.81** mΩ

* change from initial

WIRE TO WIRE						
ITEM	**DESCRIPTION**	**TREATMENT**	**REQUIREMENT**	**MEAN**	**MINIMUM**	**MAXIMUM**
GROUP 1	Contact Resistance (Low Level)	Initial	13.0 mΩ Nominal no limit set	**12.70** mΩ	**11.82** mΩ	**13.52** mΩ
		After Initial Durability (Preconditioning) (25 cycles)	20 mΩ MAXIMUM*	**0.12** mΩ	**-0.31** mΩ	**0.78** mΩ
		After Temp Life (240 hrs. @ 105°C)	20 mΩ MAXIMUM*	**0.13** mΩ	**-0.27** mΩ	**0.54** mΩ
		After Reseating (3x M/U)	20 mΩ MAXIMUM*	**0.42** mΩ	**-0.13** mΩ	**1.86** mΩ

* change from initial

5.1 ELECTRICAL/ENVIRONMENTAL PERFORMANCE RESULTS (cont)

(Note that measured LLCR values are for one mated interface)

WIRE TO BOARD						
ITEM	**DESCRIPTION**	**TREATMENT**	**REQUIREMENT**	**MEAN**	**MINIMUM**	**MAXIMUM**
GROUP 2	Contact Resistance (Low Level)	Initial	13.0 mΩ Nominal no limit set	**12.99** mΩ	**12.58** mΩ	**13.51** mΩ
		After Initial Durability (Preconditioning) (25 cycles)	20 mΩ MAXIMUM*	**0.01** mΩ	**-0.33** mΩ	**0.62** mΩ
		After Thermal Shock	20 mΩ MAXIMUM*	**-0.15** mΩ	**-0.48** mΩ	**0.20** mΩ
		After Cyclic Temp and Humidity	20 mΩ MAXIMUM*	**-0.14** mΩ	**-0.51** mΩ	**0.64** mΩ
		After Reseating (3x M/U)	20 mΩ MAXIMUM*	**-0.03** mΩ	**-0.39** mΩ	**0.52** mΩ

* change from initial

WIRE TO WIRE						
ITEM	**DESCRIPTION**	**TREATMENT**	**REQUIREMENT**	**MEAN**	**MINIMUM**	**MAXIMUM**
GROUP 2	Contact Resistance (Low Level)	Initial	13.0 mΩ Nominal no limit set	**13.01** mΩ	**12.53** mΩ	**13.57** mΩ
		After Initial Durability (Preconditioning) (25 cycles)	20 mΩ MAXIMUM*	**0.23** mΩ	**-0.41** mΩ	**0.66** mΩ
		After Thermal Shock	20 mΩ MAXIMUM*	**0.11** mΩ	**-0.34** mΩ	**0.56** mΩ
		After Cyclic Temp and Humidity	20 mΩ MAXIMUM*	**0.10** mΩ	**-0.41** mΩ	**0.51** mΩ
		After Reseating (3x M/U)	20 mΩ MAXIMUM*	**-0.29** mΩ	**-0.34** mΩ	**0.97** mΩ

* change from initial

5.1 ELECTRICAL/ENVIRONMENTAL PERFORMANCE RESULTS (cont)

(Note that measured LLCR values are for one mated interface)

WIRE TO BOARD						
ITEM	**DESCRIPTION**	**TREATMENT**	**REQUIREMENT**	**MEAN**	**MINIMUM**	**MAXIMUM**
GROUP 3	Contact Resistance (Low Level)	Initial	13.0 mΩ Nominal no limit set	**12.94** mΩ	**12.23** mΩ	**13.61** mΩ
		After Initial Durability (Preconditioning) (25 cycles)	20 mΩ MAXIMUM*	**0.02** mΩ	**-0.51** mΩ	**0.58** mΩ
		After Temp Life (120 hrs. @ 105°C)	20 mΩ MAXIMUM*	**0.03** mΩ	**-0.50** mΩ	**0.35** mΩ
		Vibration	20 mΩ MAXIMUM*	**0.04** mΩ	**-0.29** mΩ	**0.82** mΩ
		Mechanical Shock	20 mΩ MAXIMUM*	**0.03** mΩ	**-0.53** mΩ	**0.34** mΩ

* change from initial

WIRE TO WIRE						
ITEM	**DESCRIPTION**	**TREATMENT**	**REQUIREMENT**	**MEAN**	**MINIMUM**	**MAXIMUM**
GROUP 3	Contact Resistance (Low Level)	Initial	13.0 mΩ Nominal no limit set	**13.05** mΩ	**12.37** mΩ	**13.71** mΩ
		After Initial Durability (Preconditioning) (25 cycles)	20 mΩ MAXIMUM*	**0.15** mΩ	**-0.25** mΩ	**0.61** mΩ
		After Temp Life (120 hrs. @ 105°C)	20 mΩ MAXIMUM*	**0.28** mΩ	**-0.21** mΩ	**0.76** mΩ
		Vibration	20 mΩ MAXIMUM*	**0.44** mΩ	**0.07** mΩ	**0.93** mΩ
		Mechanical Shock	20 mΩ MAXIMUM*	**0.47** mΩ	**0.03** mΩ	**1.72** mΩ

* change from initial

5.1 ELECTRICAL/ENVIRONMENTAL PERFORMANCE RESULTS (cont)

(Note that measured LLCR values are for one mated interface)

WIRE TO BOARD, 15µ" Au						
ITEM	**DESCRIPTION**	**TREATMENT**	**REQUIREMENT**	**MEAN**	**MINIMUM**	**MAXIMUM**
GROUP 4	Contact Resistance (Low Level)	Initial	13.0 mΩ Nominal no limit set	**12.94** mΩ	**12.51** mΩ	**13.53** mΩ
		After Initial Durability (Preconditioning) (25 cycles)	20 mΩ MAXIMUM*	**0.03** mΩ	**-0.52** mΩ	**0.90** mΩ
		After Temp. Life (120 hrs. @ 105 C)	20 mΩ MAXIMUM*	**0.10** mΩ	**-0.28** mΩ	**1.31** mΩ
		After Mixed Flowing Gas Testing (7 days Unmated)	20 mΩ MAXIMUM*	**1.11** mΩ	**0.21** mΩ	**4.92** mΩ
		After Mixed Flowing Gas Testing (3 days Mated)	20 mΩ MAXIMUM*	**1.40** mΩ	**0.26** mΩ	**6.39** mΩ
		After Thermal Shock	20 mΩ MAXIMUM*	**1.01** mΩ	**-0.41** mΩ	**33.45** mΩ
		After Reseating (3x M/U)	20 mΩ MAXIMUM*	**0.88** mΩ	**-0.17** mΩ	**29.43** mΩ

* change from initial

5.1 ELECTRICAL/ENVIRONMENTAL PERFORMANCE RESULTS (cont)

(Note that measured LLCR values are for one mated interface)

WIRE TO BOARD, 30µ" Au						
ITEM	**DESCRIPTION**	**TREATMENT**	**REQUIREMENT**	**MEAN**	**MINIMUM**	**MAXIMUM**
GROUP 4	Contact Resistance (Low Level)	Initial	13.0 mΩ Nominal no limit set	**12.80** mΩ	**12.40** mΩ	**13.34** mΩ
		After Initial Durability (Preconditioning) (25 cycles)	20 mΩ MAXIMUM*	**0.02** mΩ	**-0.42** mΩ	**0.38** mΩ
		After Temp. Life (120 hrs. @ 105 C)	20 mΩ MAXIMUM*	**-0.01** mΩ	**-0.42** mΩ	**0.34** mΩ
		After Mixed Flowing Gas Testing (7 days Unmated)	20 mΩ MAXIMUM*	**0.69** mΩ	**-0.25** mΩ	**2.61** mΩ
		After Mixed Flowing Gas Testing (3 days Mated)	20 mΩ MAXIMUM*	**0.71** mΩ	**0.08** mΩ	**2.79** mΩ
		After Thermal Shock	20 mΩ MAXIMUM*	**0.26** mΩ	**-0.41** mΩ	**1.53** mΩ
		After Reseating (3x M/U)	20 mΩ MAXIMUM*	**0.60** mΩ	**-0.30** mΩ	**2.11** mΩ

* change from initial

5.1 ELECTRICAL/ENVIRONMENTAL PERFORMANCE RESULTS (cont)

(Note that measured LLCR values are for one mated interface)

WIRE TO WIRE, 15µ" Au						
ITEM	**DESCRIPTION**	**TREATMENT**	**REQUIREMENT**	**MEAN**	**MINIMUM**	**MAXIMUM**
GROUP 4	Contact Resistance (Low Level)	Initial	13.0 mΩ Nominal no limit set	**13.05** mΩ	**12.13** mΩ	**14.26** mΩ
		After Initial Durability (Preconditioning) (25 cycles)	20 mΩ MAXIMUM*	**0.01** mΩ	**-0.35** mΩ	**0.44** mΩ
		After Temp. Life (120 hrs. @ 105 C)	20 mΩ MAXIMUM*	**0.08** mΩ	**-0.37** mΩ	**0.46** mΩ
		After Mixed Flowing Gas Testing (7 days Unmated)	20 mΩ MAXIMUM*	**2.07** mΩ	**-0.52** mΩ	**10.28** mΩ
		After Mixed Flowing Gas Testing (3 days Mated)	20 mΩ MAXIMUM*	**1.61** mΩ	**0.41** mΩ	**5.39** mΩ
		After Thermal Shock	20 mΩ MAXIMUM*	**3.23** mΩ	**0.28** mΩ	**33.62** mΩ
		After Reseating (3x M/U)	20 mΩ MAXIMUM*	**2.67** mΩ	**0.20** mΩ	**12.65** mΩ

* change from initial

5.1 ELECTRICAL/ENVIRONMENTAL PERFORMANCE RESULTS (cont)

(Note that measured LLCR values are for one mated interface)

WIRE TO WIRE, 30µ" Au						
ITEM	**DESCRIPTION**	**TREATMENT**	**REQUIREMENT**	**MEAN**	**MINIMUM**	**MAXIMUM**
GROUP 4	Contact Resistance (Low Level)	Initial	13.0 mΩ Nominal no limit set	**12.63** mΩ	**12.00** mΩ	**13.38** mΩ
		After Initial Durability (Preconditioning) (25 cycles)	20 mΩ MAXIMUM*	**0.14** mΩ	**-0.31** mΩ	**0.62** mΩ
		After Temp. Life (120 hrs. @ 105 C)	20 mΩ MAXIMUM*	**0.07** mΩ	**-0.39** mΩ	**0.55** mΩ
		After Mixed Flowing Gas Testing (7 days Unmated)	20 mΩ MAXIMUM*	**1.05** mΩ	**0.05** mΩ	**5.01** mΩ
		After Mixed Flowing Gas Testing (3 days Mated)	20 mΩ MAXIMUM*	**1.10** mΩ	**0.08** mΩ	**7.13** mΩ
		After Thermal Shock	20 mΩ MAXIMUM*	**0.86** mΩ	**-0.03** mΩ	**8.26** mΩ
		After Reseating (3x M/U)	20 mΩ MAXIMUM*	**1.34** mΩ	**0.23** mΩ	**3.88** mΩ

* change from initial

5.1 ELECTRICAL/ENVIRONMENTAL PERFORMANCE RESULTS (cont)

(Note that measured LLCR values are for one mated interface)

WIRE TO BOARD						
ITEM	**DESCRIPTION**	**TREATMENT**	**REQUIREMENT**	**MEAN**	**MINIMUM**	**MAXIMUM**
GROUP 5	Contact Resistance (Low Level)	Initial	13.0 mΩ Nominal no limit set	**12.90** mΩ	**12.39** mΩ	**13.34** mΩ
		After Initial Durability (Preconditioning) (25 cycles)	20 mΩ MAXIMUM*	**0.06** mΩ	**-0.31** mΩ	**0.70** mΩ
		After Temp. Life (120 hrs. @ 105 C)	20 mΩ MAXIMUM*	**0.27** mΩ	**-0.15** mΩ	**1.08** mΩ
		After Thermal Cycling	20 mΩ MAXIMUM*	**-0.03** mΩ	**-0.37** mΩ	**0.63** mΩ
		After Thermal Shock	20 mΩ MAXIMUM*	**0.12** mΩ	**-0.37** mΩ	**0.61** mΩ

* change from initial

WIRE TO WIRE						
ITEM	**DESCRIPTION**	**TREATMENT**	**REQUIREMENT**	**MEAN**	**MINIMUM**	**MAXIMUM**
GROUP 5	Contact Resistance (Low Level)	Initial	13.0 mΩ Nominal no limit set	**12.81** mΩ	**12.00** mΩ	**13.62** mΩ
		After Initial Durability (Preconditioning) (25 cycles)	20 mΩ MAXIMUM*	**0.08** mΩ	**-0.50** mΩ	**0.62** mΩ
		After Temp. Life (120 hrs. @ 105 C)	20 mΩ MAXIMUM*	**0.22** mΩ	**-0.62** mΩ	**0.84** mΩ
		After Thermal Cycling	20 mΩ MAXIMUM*	**0.23** mΩ	**-0.48** mΩ	**0.85** mΩ
		After Thermal Shock	20 mΩ MAXIMUM*	**0.35** mΩ	**-0.54** mΩ	**1.42** mΩ

* change from initial

5.1 ELECTRICAL/ENVIRONMENTAL PERFORMANCE RESULTS (cont)

15µ" Au – 40 cycles				
ITEM	**DESCRIPTION**	**TREATMENT**	**REQUIREMENT**	RESULTS
GROUP 7	Dielectric Withstanding Voltage (DWV)	Durability (40 M/U cycles) 2200 VAC	No breakdown or flashover	PASS

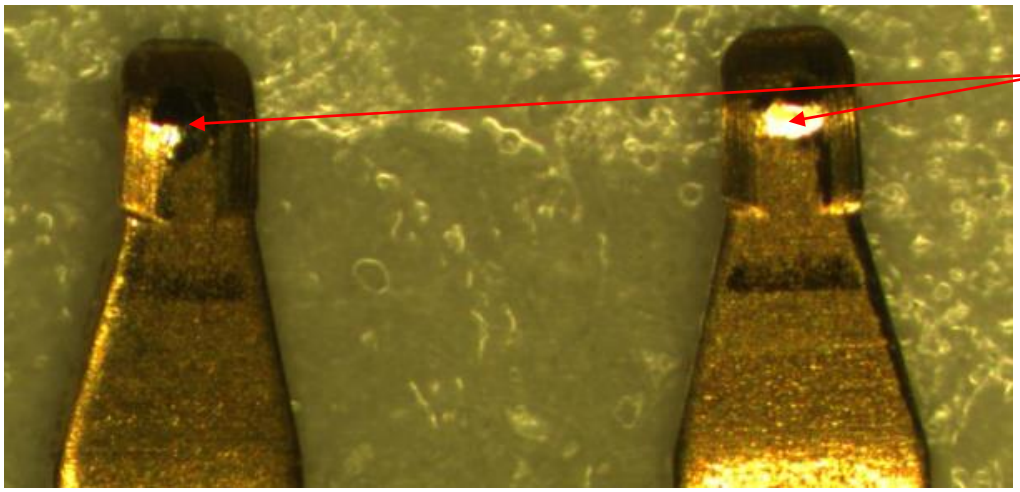


Figure 1 – Contact area shown after 40 cycles

5.1 ELECTRICAL/ENVIRONMENTAL PERFORMANCE RESULTS (cont)

15µ" Au – 250 cycles (lubricated)				
ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	RESULTS
GROUP 7	Dielectric Withstanding Voltage (DWV)	Durability (250 M/U cycles) 2200 VAC	No breakdown or flashover	PASS

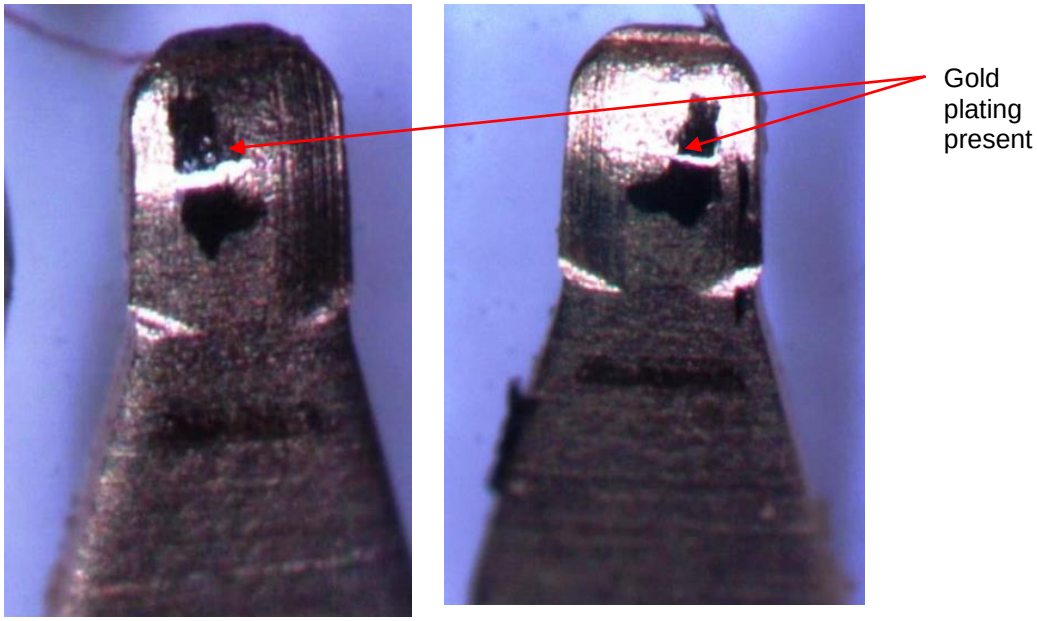


Figure 3 – Contact area shown after 250 cycles

5.2 MECHANICAL PERFORMANCE RESULTS

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
1a	**2 circuit** Connector Mate and Unmate Forces (W-B, 15µ" Au) ***thumb latch removed***	Initial Mating	8.0 N maximum	**5.52** N	**3.81** N	**6.88** N
		Initial Un-Mating	4.0 N maximum	**2.93** N	**2.43** N	**3.57** N
		Final Mating (after 40 cycles)	8.0 N maximum	**4.71** N	**3.40** N	**5.30** N
		Final Un-Mating (after 40 cycles)	4.0 N maximum	**3.51** N	**1.63** N	**4.06** N
1b	**2 circuit** Connector Mate and Unmate Forces (W-W, 15µ" Au) ***thumb latch removed***	Initial Mating	8.0 N maximum	**5.03** N	**4.67** N	**5.46** N
		Initial Un-Mating	4.0 N maximum	**2.30** N	**2.13** N	**2.58** N
		Final Mating (after 40 cycles)	8.0 N maximum	**3.59** N	**3.27** N	**3.87** N
		Final Un-Mating (after 40 cycles)	4.0 N maximum	**2.32** N	**2.10** N	**2.51** N
1c	**12 circuit** Connector Mate and Unmate Forces (W-B, 15µ" Au) ***thumb latch removed***	Initial Mating	48.0 N maximum	**15.32** N	**13.78** N	**17.00** N
		Initial Un-Mating	24.0 N maximum	**9.79** N	**7.83** N	**13.15** N
		Final Mating (after 40 cycles)	48.0 N maximum	**16.81** N	**14.74** N	**20.44** N
		Final Un-Mating (after 40 cycles)	24.0 N maximum	**13.76** N	**11.22** N	**16.38** N
1d	**12 circuit** Connector Mate and Unmate Forces (W-W, 15µ" Au) ***thumb latch removed***	Initial Mating	48.0 N maximum	**29.39** N	**21.65** N	**34.27** N
		Initial Un-Mating	24.0 N maximum	**18.10** N	**13.22** N	**21.98** N
		Final Mating (after 40 cycles)	48.0 N maximum	**24.12** N	**19.84** N	**28.23** N
		Final Un-Mating (after 40 cycles)	24.0 N maximum	**19.69** N	**14.57** N	**23.78** N

5.2 MECHANICAL PERFORMANCE RESULTS (cont)

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
1e	**24 circuit** Connector Mate and Unmate Forces (W-B, 15µ" Au) ***thumb latch removed***	Initial Mating	96.0 N maximum	**37.93** N	**33.42** N	**42.50** N
		Initial Un-Mating	48.0 N maximum	**21.82** N	**19.98** N	**23.35** N
		Final Mating (after 40 cycles)	96.0 N maximum	**34.04** N	**31.42** N	**36.26** N
		Final Un-Mating (after 40 cycles)	48.0 N maximum	**25.35** N	**23.77** N	**27.13** N
1f	**24 circuit** Connector Mate and Unmate Forces (W-W, 15µ" Au) ***thumb latch removed***	Initial Mating	96.0 N maximum	**52.61** N	**47.20** N	**61.89** N
		Initial Un-Mating	48.0 N maximum	**29.87** N	**27.53** N	**32.68** N
		Final Mating (after 40 cycles)	96.0 N maximum	**43.80** N	**40.78** N	**45.15** N
		Final Un-Mating (after 40 cycles)	48.0 N maximum	**36.45** N	**32.49** N	**39.52** N

5.2 MECHANICAL PERFORMANCE RESULTS (cont)

ITEM	DESCRIPTION	TREATMENT	REQUIREMENT	MEAN	MINIMUM	MAXIMUM
2	Terminal Retention Force (in housing)	-----	24.5 N per contact minimum	**36.4** N	**35.4** N	**37.9** N
3	Terminal Insertion Force (in housing)	-----	14.7 N per contact maximum	**2.9** N	**2.2** N	**4.2** N
4	Wire Pullout Force (from terminal)	20 awg	57.8 N minimum	**107.4** N	**97.0** N	**116.0** N
		22 awg	35.6 N minimum	**80.7** N	**71.8** N	**86.0** N
		24 awg	22.2 N minimum	**50.45** N	**46.0** N	**56.0** N
		26 awg	13.3 N minimum	**28.7 N**	**24.0 N**	**31.0 N**
		28 awg	8.9 N minimum	**17.1 N**	**15.0 N**	**19.0 N**
		30 awg	6.6 N minimum	**9.4 N**	**9.0 N**	**10.0 N**
5	Normal Force (nominal deflection)	Initial	50 g per contact beam minimum	**134.8** g	**120.8** g	**143.3** g
		After one cycle	50 g per contact beam minimum	**134.3** g	**121.8** g	**143.6** g

6.0 APPENDIX 1

6.1 TEST SEQUENCES

GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 7
Visual Exam	Visual Exam	Visual Exam	Visual Exam	Visual Exam	Visual Exam
LLCR	LLCR	LLCR	LLCR	LLCR	LLCR
Preconditioning Durability (25 M/U cycles)	Preconditioning Durability (25 M/U cycles)	Preconditioning Durability (25 M/U cycles)	Preconditioning Durability (25 M/U cycles)	Preconditioning Durability (25 M/U cycles)	Durability (40 M/U cycles)
LLCR	LLCR	Temp Life (120 hrs @ 105°)	LLCR	LLCR	LLCR
Temp Life (240 hrs @ 105°)	Thermal Shock	LLCR	Temp Life (120 hrs @ 105°)	Temp Life (120 hrs @ 105°)	DWV
LLCR	LLCR	Vibration	LLCR	LLCR	Visual Exam
Reseating	Cyclic Temp and Humidity	LLCR	MFG (7 days Unmated)	Thermal Cycling	
LLCR	LLCR	Mechanical Shock	LLCR	LLCR	
	Reseating	LLCR	MFG (3 days Mated)	Thermal Shock	
	LLCR		LLCR	LLCR	
			Thermal Shock	Reseating	
			LLCR	LLCR	
			Reseating		
			LLCR		

6.2 TEST PROCEDURES

ITEM	TEST CONDITION
LOW LEVEL CONTACT RESISTANCE (LLCR)	per EIA-364-TP-23
INITIAL MATING FORCE	per EIA-364-TP-13
INITIAL UN-MATING FORCE	per EIA-364-TP-13
DURABILITY	per EIA-364-TP-09
RANDOM VIBRATION	per EIA-364-TP-28, Test Cond. VII
MECHANICAL SHOCK	per EIA-364-TP-27 Peak Value: 50 G; Duration: 11 mSec.; Waveform: Half Sine; # Shocks Direction: 3 shocks/3 axes (18 total)
NORMAL FORCE	per EIA-364-04 (perpendicular force)
THERMAL AGING (Temp life)	per EIA-364-TP-17, method A
THERMAL SHOCK	per EIA-364-TP-32
CYCLIC HUMIDITY	per EIA-364-TP-31 Test Temp: +40° ± 2° C Relative Humidity: 90 to 95%; Test Duration: 96 hours
MIXED FLOWING GAS (MFG)	per EIA-364-TP-65, Option 2, Class IIA
Dielectric Withstanding Voltage (DWV)	per EIA-364-TP-20 Method B
Insulation Resistance	per EIA-364-TP-21
Current Carrying Capacity (CCC)	per EIA-364-TP-70 Method 2

7.0 REVISION HISTORY

Revision Level:	Created / Revised By:	Revision Description:	Date of Revision
A	T. Gregori	Initial “A” Release	7/09/08
B	T. Gregori	Revised Group 4 data based on test results, section 5.1	7/28/08
C	T. Gregori	T-Rise table added; Group 7 250 cycle table added	11/20/08
D	T. Gregori	Revised mate / un-mate force; added total forces for 2, 12 and 24 ckts (items 1a thru 1f)	8/5/09
D1	JDFOX	Add series detail to sections 2.1 & 2.1.1	10/19/16