



Project Number:		Tracking Code: TC0834-qms/qfs-1914			
Requested by: Kevin Bratcher		Date: 8/19/2008		Product Rev: see print	
Part #: QMS-078-01-S-D-RA-PC8/QFS-078-01-S-D-RA-PC8			Lot #: 1	Tech: Rodney Riley & Tony Wagoner	Eng: Troy Cook
Part description: QMS/QFS					Qty to test: 48
Test Start: 8/19/2008		Test Completed: 10/21/2008			

CCC, MATING/UNMATING, AND IR/DWV REPORT

PART DESCRIPTION

QMS-078-01-S-D-RA-PC8/QFS-078-01-S-D-RA-PC8

CERTIFICATION

All instruments and measuring equipment were calibrated to National Institute for Standards and Technology (NIST) traceable standards according to ISO 10012-1 and ANSI/NCSL 2540-1, as applicable.

All contents contained herein are the property of Samtec. No portion of this report, in part or in full shall be reproduced without prior written approval of Samtec.

SCOPE

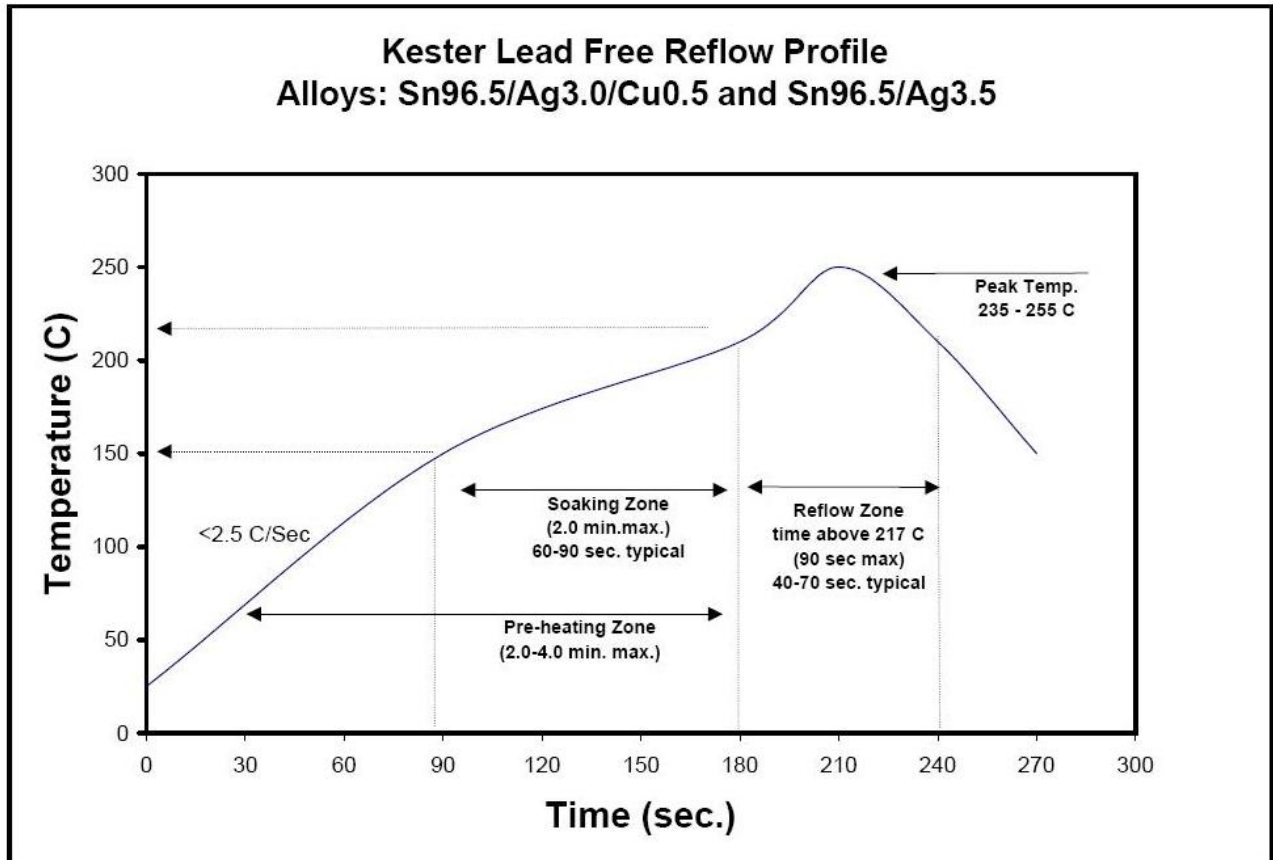
To perform the following tests: CCC, MATING/UNMATING, AND IR/DWV

APPLICABLE DOCUMENTS

Standards: EIA Publication 364

TEST SAMPLES AND PREPARATION

- 1) All materials were manufactured in accordance with the applicable product specification.
- 2) All test samples were identified and encoded to maintain traceability throughout the test sequences.
- 3) After soldering, the parts to be used for LLCR and DWV/IR testing were cleaned according to TLWI-0001.
- 4) Either an automated cleaning procedure or an ultrasonic cleaning procedure may be used.
- 5) The automated procedure is used with aqueous compatible soldering materials.
- 6) Parts not intended for testing LLCR and DWV/IR are visually inspected and cleaned if necessary.
- 7) Any additional preparation will be noted in the individual test sequences.
- 8) Solder Information: Lead Free
- 9) Re-Flow Time/Temp: See accompanying profile.
- 10) Samtec Test PCBs used: PCB-100948-TST-XX, PCB-101368-TST-XX

TYPICAL OVEN PROFILE (Soldering Parts to Test Boards)

FLOWCHARTS

Mating/Unmating/Gaps/Normal Force/Deflection Force

TEST STEP	GROUP A 10 Boards
01	Contact Gaps
02	Mating / Unmating
03	Data Review
04	100 Cycles
05	Mating / Unmating
06	Contact Gaps
07	Data Review
08	Thermal Aging (Mated)
09	Mating / Unmating
10	Contact Gaps
11	Data Review
12	Humidity (Mated)
13	Contact Gaps
14	Mating / Unmating

Thermal Aging = EIA-364-17, Test Condition 4, 105 deg C;
Time Condition 'B' (250 hours)

Humidity =EIA-364-31, Test Condition B (240 Hours)
and Method III (+25° C to +65° C @ 90%RH to 98% RH)
ambient pre-condition and delete steps 7a and 7b

Mating/Un-Mating Forces = EIA-364-13

Contact Gaps/Height - No standard method. Usually measured optically

Current Carrying Capacity 3 Mated Assemblies Each

TEST STEP	GROUP A 3 Mated Assemblies 2 CONTACT POWERED	GROUP B 3 Mated Assemblies 4 CONTACTS POWERED	GROUP C 3 Mated Assemblies 6 CONTACTS POWERED	GROUP D 3 Mated Assemblies 8 CONTACTS POWERED
01	CCC	CCC	CCC	CCC

(TIN PLATING) - Tabulate calculated current at RT, 65° C, 75° C and 95° C
after derating 20% and based on 105° C

(GOLD PLATING) - Tabulate calculated current at RT, 85° C, 95° C and 115° C
after derating 20% and based on 125° C

CCC, Temp rise = EIA-364-70

FLOWCHARTS Continued**IR / DWV**

TEST STEP	GROUP A 2 Boards Ambient	GROUP B1 2 Boards Ambient	GROUP B2 2 Boards Thermal	GROUP B3 2 Boards Humidity
01	IR	DWV/Working Voltage	Thermal Aging	Humidity
02	Data Review		DWV/Working Voltage	DWV/Working Voltage
03	Thermal Aging			
04	IR			
05	Data Review			
06	Humidity			
07	IR			

Thermal Aging = EIA-364-17, Test Condition 4, 105 deg C;

Time Condition 'B' (250 hours)

Humidity = EIA-364-31, Test Condition B (240 Hours)

and Method III (+25 ° C to +65 ° C @ 90%RH to 98% RH)

ambient pre-condition and delete steps 7a and 7b

IR = EIA-364-21

DWV = EIA-364-20

ATTRIBUTE DEFINITIONS

The following is a brief, simplified description of attributes.

THERMAL:

- 1) EIA-364-17, *Temperature Life with or without Electrical Load Test Procedure for Electrical Connectors*.
- 2) Test Condition 4 at 105° C.
- 3) Test Time Condition B for 250 hours.
- 4) All test samples are pre-conditioned at ambient.
- 5) All test samples are exposed to environmental stressing in the mated condition.

HUMIDITY:

- 1) Reference document: EIA-364-31, *Humidity Test Procedure for Electrical Connectors*.
- 2) Test Condition B, 240 Hours.
- 3) Method III, +25° C to + 65° C, 90% to 98% Relative Humidity excluding sub-cycles 7a and 7b.
- 4) All samples are pre-conditioned at ambient.
- 5) All test samples are exposed to environmental stressing in the mated condition.

TEMPERATURE RISE (Current Carrying Capacity, CCC):

- 1) EIA-364-70, *Temperature Rise versus Current Test Procedure for Electrical Connectors and Sockets*.
- 2) When current passes through a contact, the temperature of the contact increases as a result of I^2R (resistive) heating.
- 3) The number of contacts being investigated plays a significant part in power dissipation and therefore temperature rise.
- 4) The size of the temperature probe can affect the measured temperature.
- 5) Copper traces on PC boards will contribute to temperature rise:
 - a. Self heating (resistive)
 - b. Reduction in heat sink capacity affecting the heated contacts
- 6) A de-rating curve, usually 20%, is calculated.
- 7) Calculated de-rated currents at three temperature points are reported:
 - a. Ambient
 - b. 80° C
 - c. 95° C
 - d. 115° C
- 8) Typically, neighboring contacts (in close proximity to maximize heat build up) are energized.
- 9) The thermocouple (or temperature measuring probe) will be positioned at a location to sense the maximum temperature in the vicinity of the heat generation area.
- 10) A computer program, *TR 803.exe*, ensures accurate stability for data acquisition.
- 11) Hook-up wire cross section is larger than the cross section of any connector leads/PC board traces, jumpers, etc.
- 12) Hook-up wire length is longer than the minimum specified in the referencing standard.

CONTACT GAPS:

- 1) Gaps above the surrounding plastic surface were measured before and after stressing the contacts (e.g. thermal aging, mechanical cycling, etc.).
- 2) Typically, all contacts on the connector are measured.

MATING/UNMATING:

- 1) Reference document: EIA-364-13, *Mating and Unmating Forces Test Procedure for Electrical Connectors*.
- 2) The full insertion position was to within 0.003" to 0.004" of the plug bottoming out in the receptacle to prevent damage to the system under test.
- 3) One of the mating parts is secured to a floating X-Y table to prevent damage during cycling.

INSULATION RESISTANCE (IR):

To determine the resistance of insulation materials to leakage of current through or on the surface of these materials when a DC potential is applied.

- 1) PROCEDURE:
 - a. Reference document: EIA-364-21, *Insulation Resistance Test Procedure for Electrical Connectors*.
 - b. Test Conditions:
 - i. Between Adjacent Contacts or Signal-to-Ground
 - ii. Electrification Time 2.0 minutes
 - iii. Test Voltage (500 VDC) corresponds to calibration settings for measuring resistances.
- 2) MEASUREMENTS:
- 3) When the specified test voltage is applied (VDC), the insulation resistance shall not be less than 5000 megohms.

DIELECTRIC WITHSTANDING VOLTAGE (DWV):

To determine if the sockets can operate at its rated voltage and withstand momentary over potentials due to switching, surges, and other similar phenomenon. Separate samples are used to evaluate the effect of environmental stresses so not to influence the readings from arcing that occurs during the measurement process.

- 1) PROCEDURE:
 - a. Reference document: EIA-364-20, *Withstanding Voltage Test Procedure for Electrical Connectors*.
 - b. Test Conditions:
 - i. Between Adjacent Contacts or Signal-to-Ground
 - ii. Rate of Application 500 V/Sec
 - iii. Test Voltage (VAC) until breakdown occurs
- 2) MEASUREMENTS/CALCULATIONS
 - a. The breakdown voltage shall be measured and recorded.
 - b. The dielectric withstanding voltage shall be recorded as 75% of the minimum breakdown voltage.
 - c. The working voltage shall be recorded as one-third (1/3) of the dielectric withstanding voltage (one-fourth of the breakdown voltage).

RESULTS

Temperature Rise, CCC at a 20% de-rating

- CCC for a 30°C Temperature Rise-----4.1A per contact with 2 adjacent contacts powered
- CCC for a 30°C Temperature Rise-----3.3A per contact with 4 adjacent contacts powered
- CCC for a 30°C Temperature Rise-----2.7A per contact with 6 adjacent contacts powered
- CCC for a 30°C Temperature Rise-----2.4A per contact with 8 adjacent contacts powered

Contact Gaps

- **Initial**
 - **Min**-----0.14”
 - **Max**-----0.15”
- **After 100 Cycles**
 - **Min**-----0.14”
 - **Max**-----0.15”
- **Thermal**
 - **Min**-----0.14”
 - **Max**-----0.17”
- **Humidity**
 - **Min**-----0.14”
 - **Max**-----0.16”

Mating – Unmating Forces

- **Initial**
 - **Mating**
 - **Min**-----11.6 lbs
 - **Max**-----14.4 lbs
 - **Unmating**
 - **Min**----- 7.8 lbs
 - **Max**-----12.0 lbs
- **After 100 Cycles**
 - **Mating**
 - **Min**-----11.6 lbs
 - **Max**-----14.3 lbs
 - **Unmating**
 - **Min**----- 7.9 lbs
 - **Max**-----12.8 lbs
- **Thermal**
 - **Mating**
 - **Min**----- 7.1 lbs
 - **Max**-----11.1 lbs
 - **Unmating**
 - **Min**----- 5.5 lbs
 - **Max**----- 6.9 lbs
- **Humidity**
 - **Mating**
 - **Min**-----10.1 lbs
 - **Max**-----12.5 lbs
 - **Unmating**
 - **Min**----- 7.7 lbs
 - **Max**-----11.2 lbs

Insulation Resistance minimums, IR

- **Initial**
 - Mated-----100,000 Meg Ω ----- Pass
 - Unmated -----100,000 Meg Ω
- **Thermal**
 - Mated-----100,000 Meg Ω
 - Unmated -----100,000 Meg Ω
- **Humidity**
 - Mated-----100,000 Meg Ω
 - Unmated -----100,000 Meg Ω

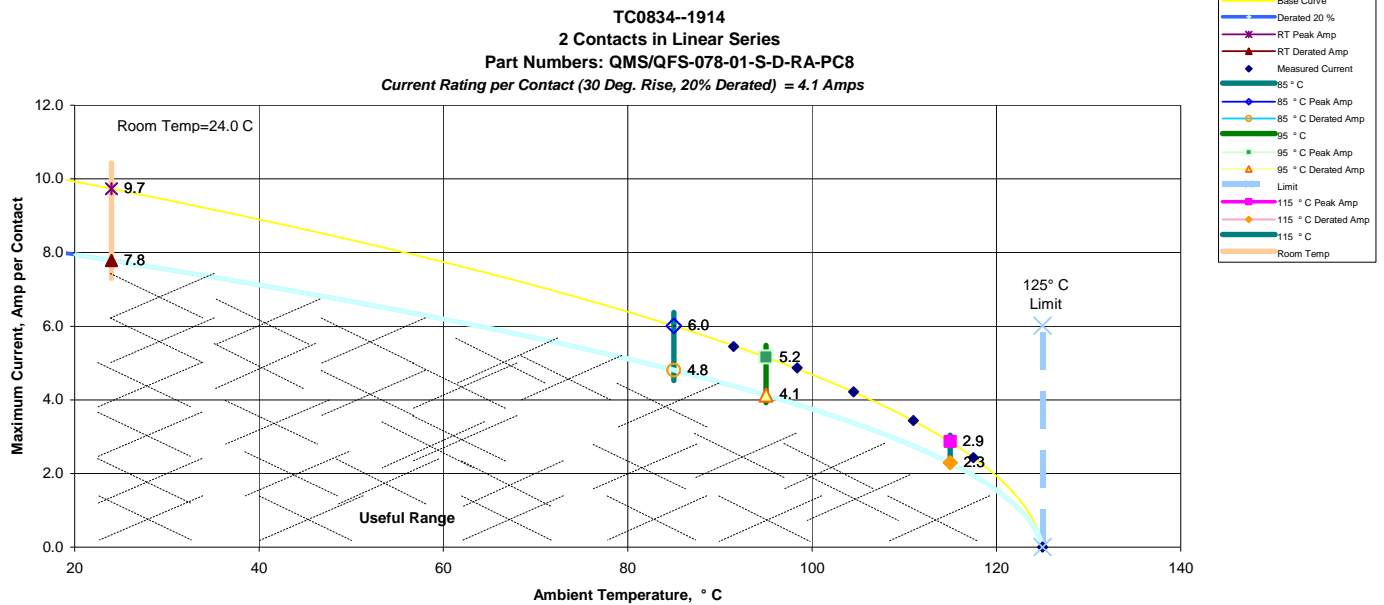
Dielectric Withstanding Voltage minimums, DWV

- **Initial**
 - **Breakdown**
 - Mated -----1,250 VAC
 - Unmated-----1,250 VAC
 - **DWV**
 - Mated -----937.5 VAC
 - Unmated-----937.5 VAC
 - **Working voltage**
 - Mated -----416.7 VAC
 - Unmated-----416.7 VAC
- **Thermal**
 - **Breakdown**
 - Mated -----1,350 VAC
 - Unmated-----2,100 VAC
 - **DWV**
 - Mated -----1,013 VAC
 - Unmated-----1,575 VAC
 - **Working voltage**
 - Mated -----450 VAC
 - Unmated-----700 VAC
- **Humidity**
 - **Breakdown**
 - Mated -----1,500 VAC
 - Unmated-----2,000 VAC
 - **DWV**
 - Mated -----1,125 VAC
 - Unmated-----1,500 VAC
 - **Working voltage**
 - Mated -----500 VAC
 - Unmated-----667 VAC

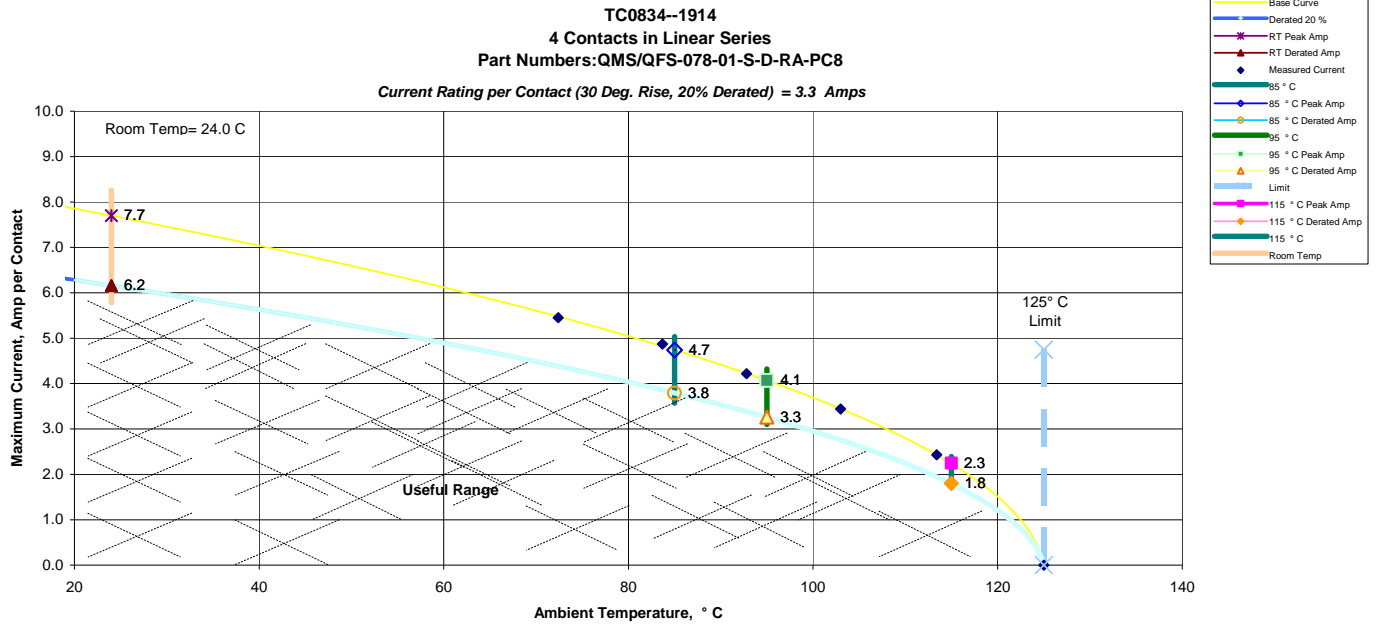
DATA SUMMARIES

TEMPERATURE RISE (Current Carrying Capacity, CCC):

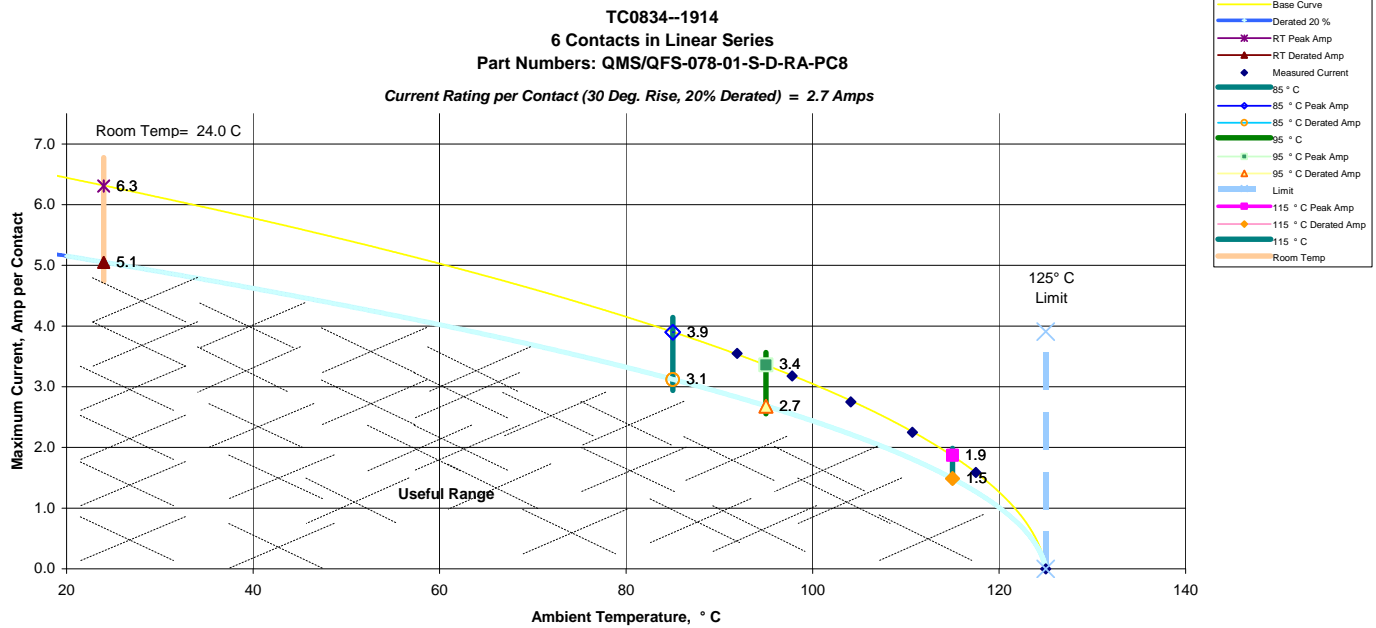
- 1) High quality thermocouples whose temperature slopes track one another were used for temperature monitoring.
- 2) The thermocouples were placed at a location to sense the maximum temperature generated during testing.
- 3) Temperature readings recorded are those for which three successive readings, 15 minutes apart, differ less than 1° C (computer controlled data acquisition).
- 4) Adjacent contacts were powered:
 - a. Linear configuration with 2 adjacent conductors/contacts powered



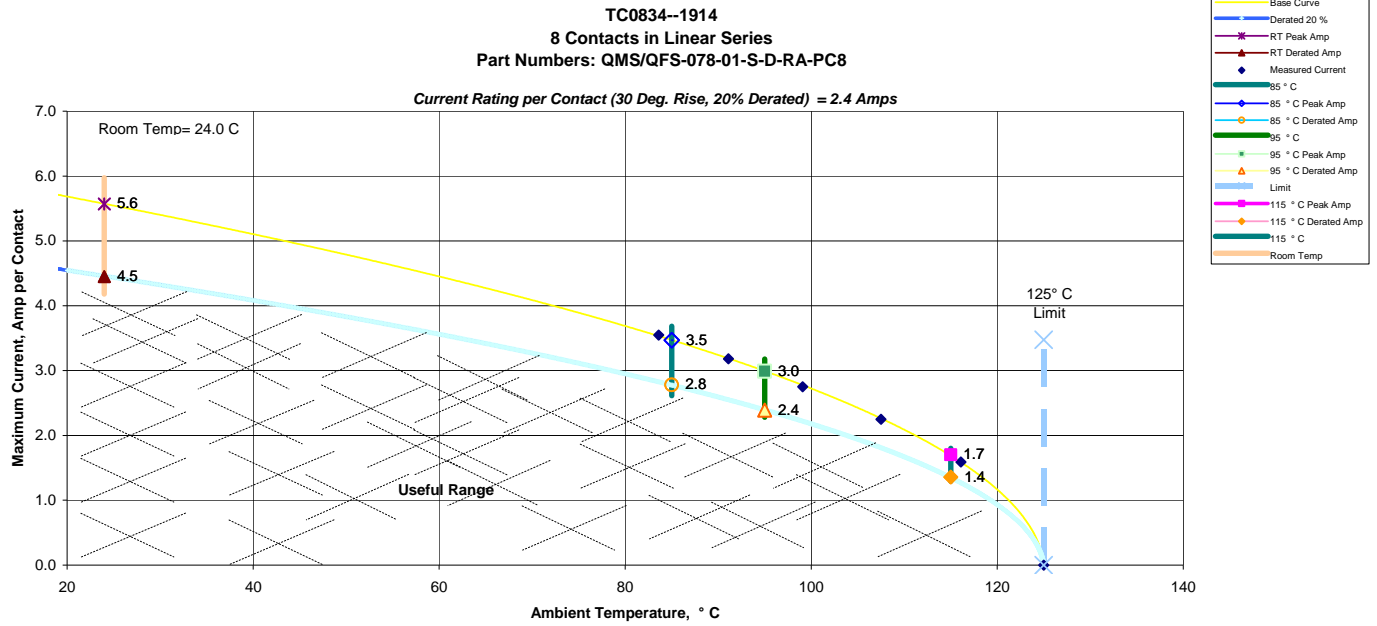
b. Linear configuration with 4 adjacent conductors/contacts powered



c. Linear configuration with 6 adjacent conductors/contacts powered



d. Linear configuration with all adjacent conductors/contacts powered



DATA SUMMARIES Continued**CONTACT GAPS:**

Initial		After 100 Cycles		After Thermal		After Humidity	
Measured in inches		Measured in inches		Measured in inches		Measured in inches	
<i>Minimum</i>	0.0143	<i>Minimum</i>	0.0142	<i>Minimum</i>	0.0144	<i>Minimum</i>	0.0141
<i>Maximum</i>	0.0153	<i>Maximum</i>	0.0154	<i>Maximum</i>	0.0169	<i>Maximum</i>	0.0161
<i>Average</i>	0.0149	<i>Average</i>	0.0148	<i>Average</i>	0.0153	<i>Average</i>	0.0153
<i>St. Dev.</i>	0.0002	<i>St. Dev.</i>	0.0003	<i>St. Dev.</i>	0.0003	<i>St. Dev.</i>	0.0004
<i>Count</i>	160	<i>Count</i>	160	<i>Count</i>	160	<i>Count</i>	160

MATING/UNMATING:

	Initial				After 100 Cycles			
	Mating		Unmating		Mating		Unmating	
	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)
Minimum	186.2	11.6	124.5	7.8	186.2	11.6	126.9	7.9
Maximum	230.1	14.4	191.5	12.0	229.0	14.3	204.3	12.8
Average	199.4	12.5	145.6	9.1	210.6	13.2	157.6	9.9
	After Thermal				After Humidity			
	Mating		Unmating		Mating		Unmating	
	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)	Force (Oz)	Force (Lbs)
Minimum	114.2	7.1	87.4	5.5	161.3	10.1	122.7	7.7
Maximum	178.2	11.1	109.9	6.9	199.8	12.5	179.5	11.2
Average	136.4	8.5	96.2	6.0	182.2	11.4	147.4	9.2

DATA SUMMARIES Continued**INSULATION RESISTANCE (IR):**

POWER END - PC8 ONLY		
Pin-Pin		
	Mated	Unmated
Minimum	QMS-PC8/QFS-PC8	QMS-PC8
Initial	100000	100000
Thermal	100000	100000
Humidity	100000	100000

DIELECTRIC WITHSTANDING VOLTAGE (DWV):

POWER END - PC8 ONLY			
Pin-Pin			
		Mated	Unmated
Minimum		QMS-PC8/QFS-PC8	QMS-PC8
Breakdown Voltage	Initial	1250	1250
	Thermal	1350	2100
	Humidity	1500	2000
DWV	Initial	938	938
	Thermal	1013	1575
	Humidity	1125	1500
Working Voltage	Initial	417	417
	Thermal	450	700
	Humidity	500	667

DATA

CONTACT GAPS:

Initial											After 100 Cycles										
Measured in inches											Measured in inches										
Pos.#	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	Pos.#	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
1	0.0149	0.0146	0.0146	0.015	0.015	0.015	0.0147	0.0144	0.0146	0.0146	1	0.0146	0.0148	0.0146	0.0148	0.0145	0.0145	0.0149	0.0143	0.0149	0.0146
2	0.0152	0.0146	0.0149	0.015	0.015	0.015	0.0148	0.0146	0.0146	0.0146	2	0.0146	0.0147	0.0143	0.0149	0.0148	0.0144	0.0148	0.0145	0.0148	0.0148
3	0.0149	0.0149	0.0148	0.015	0.0148	0.0149	0.015	0.0146	0.0146	0.0146	3	0.0146	0.0148	0.0146	0.0147	0.0144	0.015	0.0149	0.0146	0.0149	0.0146
4	0.015	0.0149	0.015	0.015	0.0151	0.0151	0.0148	0.0147	0.015	0.015	4	0.0146	0.0147	0.0146	0.0148	0.0146	0.0148	0.0146	0.0143	0.0146	0.0152
5	0.0146	0.0147	0.0151	0.0146	0.0146	0.0147	0.0145	0.0148	0.0146	0.0147	5	0.0147	0.015	0.015	0.0149	0.0148	0.0147	0.0152	0.0149	0.0149	0.0154
6	0.0147	0.0147	0.0151	0.0146	0.0151	0.015	0.0146	0.015	0.0146	0.015	6	0.0152	0.0153	0.0148	0.0152	0.0147	0.0153	0.0154	0.0153	0.015	0.0152
7	0.0146	0.0151	0.015	0.0147	0.0152	0.0152	0.0149	0.0151	0.0146	0.0147	7	0.0143	0.0149	0.0147	0.0148	0.015	0.0153	0.0149	0.0151	0.0154	0.0149
8	0.0149	0.015	0.0152	0.0149	0.0151	0.0145	0.0146	0.0149	0.0146	0.015	8	0.015	0.0148	0.0148	0.0149	0.0149	0.0148	0.015	0.0151	0.0151	0.0153
9	0.0153	0.0151	0.015	0.0151	0.0153	0.015	0.0153	0.0152	0.0149	0.015	9	0.0143	0.0145	0.0145	0.0143	0.0146	0.0147	0.0143	0.0143	0.0146	0.0146
10	0.0152	0.0151	0.015	0.015	0.0149	0.0149	0.0153	0.0148	0.015	0.015	10	0.0144	0.0148	0.0144	0.0147	0.0146	0.0146	0.0147	0.0142	0.0147	0.015
11	0.0151	0.0151	0.0153	0.015	0.0149	0.0148	0.0152	0.0151	0.0149	0.015	11	0.0151	0.0146	0.0147	0.0147	0.0146	0.0146	0.0147	0.0143	0.0148	0.0146
12	0.0152	0.0151	0.0151	0.0152	0.0147	0.015	0.0152	0.015	0.015	0.015	12	0.0154	0.0147	0.0147	0.0145	0.015	0.0146	0.0146	0.0147	0.0149	0.0148
13	0.0152	0.015	0.0147	0.0148	0.0146	0.0146	0.0146	0.0148	0.0147	0.0146	13	0.0151	0.0153	0.0151	0.0147	0.0153	0.015	0.0145	0.0146	0.0145	0.0149
14	0.015	0.0147	0.0148	0.0147	0.0143	0.0149	0.0147	0.015	0.0145	0.0146	14	0.015	0.0153	0.0152	0.0146	0.015	0.015	0.0151	0.0146	0.015	0.015
15	0.0153	0.0149	0.0149	0.0148	0.0144	0.0149	0.0149	0.0146	0.0146	0.0146	15	0.015	0.0152	0.0148	0.0148	0.0151	0.015	0.0151	0.015	0.0149	0.0146
16	0.0153	0.0147	0.015	0.015	0.0144	0.0151	0.0147	0.0148	0.0145	0.0147	16	0.0147	0.015	0.0153	0.0146	0.015	0.015	0.015	0.0144	0.0152	0.0142
After Thermal											After Humidity										
Measured in inches											Measured in inches										
Pos.#	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	Pos.#	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
1	0.0157	0.0151	0.0154	0.0147	0.015	0.0156	0.0153	0.015	0.0155	0.0154	1	0.0157	0.0143	0.0148	0.0149	0.0148	0.0149	0.015	0.0156	0.0154	0.0154
2	0.0161	0.015	0.0156	0.0151	0.0155	0.0158	0.0155	0.0146	0.0155	0.0154	2	0.0147	0.015	0.0145	0.015	0.015	0.0151	0.0154	0.0154	0.0152	0.0148
3	0.0159	0.0152	0.0157	0.0146	0.0153	0.0153	0.0154	0.0152	0.0154	0.0153	3	0.0151	0.0157	0.0149	0.0152	0.0143	0.015	0.0149	0.0154	0.0153	0.0151
4	0.0156	0.015	0.0154	0.0153	0.0154	0.0157	0.0155	0.0151	0.0149	0.0153	4	0.015	0.0154	0.0148	0.015	0.0154	0.015	0.015	0.0154	0.0155	0.015
5	0.0169	0.0145	0.015	0.0155	0.015	0.015	0.015	0.015	0.0151	0.015	5	0.0154	0.0156	0.0154	0.0154	0.0153	0.0154	0.0154	0.0152	0.0156	0.0154
6	0.0155	0.0144	0.0155	0.0153	0.0152	0.0151	0.0151	0.0153	0.0152	0.0151	6	0.0153	0.0155	0.0152	0.0151	0.0151	0.0154	0.0154	0.0151	0.0157	0.0161
7	0.0154	0.0155	0.0151	0.0155	0.0152	0.0152	0.0154	0.015	0.0151	0.0152	7	0.015	0.0151	0.0155	0.0156	0.0155	0.0152	0.0157	0.0153	0.0157	0.0158
8	0.0154	0.0153	0.0154	0.0151	0.0153	0.0155	0.0154	0.0151	0.015	0.0151	8	0.0149	0.0157	0.015	0.0155	0.0155	0.0158	0.0155	0.0151	0.0154	0.0154
9	0.0157	0.0159	0.0157	0.0153	0.0153	0.0157	0.0151	0.0157	0.0152	0.0156	9	0.0152	0.0151	0.0157	0.0153	0.015	0.0154	0.0155	0.0155	0.0155	0.0146
10	0.0156	0.0156	0.0156	0.0155	0.0156	0.0154	0.0154	0.0154	0.0156	0.0154	10	0.0152	0.0151	0.0151	0.0154	0.0151	0.0153	0.0155	0.016	0.0147	0.0154
11	0.0157	0.0154	0.0151	0.0154	0.0155	0.0157	0.0156	0.0156	0.0155	0.0156	11	0.0146	0.0143	0.015	0.0155	0.0148	0.0152	0.0153	0.0154	0.0154	0.015
12	0.0159	0.0153	0.0156	0.0156	0.0157	0.0154	0.0154	0.015	0.0156	0.0154	12	0.0146	0.0141	0.0154	0.0155	0.015	0.0152	0.0154	0.0156	0.0158	0.0154
13	0.0151	0.0152	0.015	0.015	0.0152	0.0155	0.015	0.0155	0.0146	0.015	13	0.0152	0.0153	0.0157	0.0155	0.015	0.0156	0.0155	0.016	0.0157	0.0155
14	0.0152	0.0152	0.0153	0.0152	0.0154	0.0154	0.0149	0.0153	0.0157	0.0157	14	0.0154	0.0152	0.0154	0.0155	0.0155	0.0157	0.0156	0.0156	0.0158	0.0156
15	0.0154	0.0153	0.0152	0.0151	0.0154	0.0152	0.0152	0.0151	0.0151	0.0151	15	0.0154	0.0152	0.0158	0.0156	0.0156	0.0159	0.0155	0.0159	0.0154	0.0157
16	0.0158	0.015	0.015	0.0153	0.0153	0.0151	0.015	0.0151	0.0153	0.0152	16	0.0156	0.0152	0.0156	0.0158	0.0154	0.0155	0.0156	0.0161	0.0161	0.0158

MATING/UNMATING:

Sample#	Initial		After 100 Cycles		After Thermal		After Humidity	
	Mating	Unmating	Mating	Unmating	Mating	Unmating	Mating	Unmating
1	14.38	9.60	14.31	10.13	8.87	6.61	10.26	11.22
2	11.64	7.78	11.64	7.93	8.64	6.87	11.48	10.23
3	13.33	11.97	13.68	12.77	8.08	5.99	12.45	8.83
4	11.90	9.39	12.78	10.37	8.03	5.85	12.21	7.67
5	12.42	9.78	13.01	10.08	8.21	5.84	10.75	8.87
6	11.68	7.83	12.42	9.29	7.73	5.69	11.70	9.37
7	12.05	8.98	14.11	9.89	8.82	5.86	10.95	8.44
8	11.76	8.64	12.66	9.29	7.14	5.74	10.08	8.03
9	12.73	8.36	13.53	9.46	11.14	6.21	11.50	9.40
10	12.72	8.68	13.51	9.32	8.58	5.46	12.49	10.08

DATA Continued**INSULATION RESISTANCE (IR):**

POWER END - PC8 ONLY			
Pin-Pin			
Samples	Initial	Thermal	Humidity
Mated	100,000	100,000	100,000
Unmated	100,000	100,000	100,000

DIELECTRIC WITHSTANDING VOLTAGE (DWV):

POWER END - PC8 ONLY			
Pin-Pin			
		Mated	Unmated
Samples		QMS-PC8/QFS-PC8	QMS-PC8
Breakdown Voltage	Initial	1,250	1,250
	Thermal	1,350	2,100
	Humidity	1,500	2,000

EQUIPMENT AND CALIBRATION SCHEDULES**Equipment #:** TCT-04**Description:** Dillon Quantrol TC21 25-1000 mm/min series test stand**Manufacturer:** Dillon Quantrol**Model:** TC2 I series test stand**Serial #:** 04-1041-04**Accuracy:** Speed Accuracy: +/- 5% of indicated speed; Speed Accuracy: +/- 5% of indicated speed;
... Last Cal: 05/18/2007, Next Cal: 05/18/2008**Equipment #:** MV-05**Description:** 6" x 6" Video Measuring Machine**Manufacturer:** Micro-Vu**Model:** M3010838**Serial #:** V9343**Accuracy:** See Manual

... Last Cal: 02/05/2007, Next Cal: 02/05/2008

Equipment #: HPM-01**Description:** Hipot Megommeter**Manufacturer:** Hipotronics**Model:** H306B-A**Serial #:** M9905004**Accuracy:** 2 % Full Scale Accuracy

... Last Cal: 06/22/07, Next Cal: 06/22/08

Equipment #: STG-01**Description:** Hipot Megomter Safety Test Cage**Manufacturer:** Hipotronics**Model:** TC-25**Serial #:** M9910141**Accuracy:** N/A

... Last Cal: No Calibration Required, Next Cal:

Equipment #: PS-07**Description:** 20 V, 120 A DC Power Supply - AutoRanging SO/HPIB**Manufacturer:** Hewlett Packard / Agilent**Model:** AT-6031A**Serial #:** 2721A00648**Accuracy:** See Manual Current Carrying Capacity (CCC) Chamber

... Last Cal: 10/25/2007, Next Cal: 10/25/2008

Equipment #: MO-04**Description:** Multimeter /Data Acquisition System**Manufacturer:** Keithley**Model:** 2700**Serial #:** 0798688**Accuracy:** See Manual - DO NOT USE UNTIL CALIBRATED.

... Last Cal: 03/10/08, Next Cal: 03/10/09

Equipment #: TC111307-(001 - 017)
Description: CCC Chamber Thermocouples
Manufacturer: Samtec
Model:
Serial #: TC111307-(001 - 017)
Accuracy: +/- 1 Deg. +/- 1 Deg.
... Last Cal: 11/30/2007, Next Cal: 11/30/2008

Equipment #: OV-03
Description: Cascade Tek Forced Air Oven
Manufacturer: Cascade Tek
Model: TFO-5
Serial #: 0500100
Accuracy: Temp. Stability: +/- .1C/C change in ambient
... Last Cal: 06/62/07, Next Cal: 06/22/08

Equipment #: THC-02
Description: Temperature/Humidity Chamber
Manufacturer: Thermotron
Model: SE-1000-6-6
Serial #: 31808
Accuracy: See Manual (SJR Unit #1)
... Last Cal: 9/21/2007, Next Cal: 9/21/2008

Equipment #: LC-100N (icell)-1
Description: 100N load cell for Dillon Test stand
Manufacturer: Mecmesin (Dillon/Quantrol)
Model: icell
Serial #: 06-0358-08
Accuracy: .10 % of capacity
... Last Cal: 01/18/2008, Next Cal: 01/18/2009

Equipment #: Null
Description:
Manufacturer:
Model:
Serial #:
Accuracy:
... Last Cal: , Next Cal: