



Project Number: Design Qualification Test Report		Tracking Code: 116238_Report_Rev_1	
Requested by: Bruce Liu		Date: 1/25/2011	Product Rev: 0
Part #:BNC5-J-P-GN-ST-TH2D/RF316-04SP2-01SP1-0150		Lot #: N/A	Tech: Peter Chen Eng: Vico Zhao
Part description: BNC5/RF316			Qty to test: 40
Test Start: 12/10/2010	Test Completed: 01/15/2010		



Design Qualification Test Report

BNC5/RF316
BNC5-J-P-GN-ST-TH2D/RF316-04SP2-01SP1-0150

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.

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SCOPE

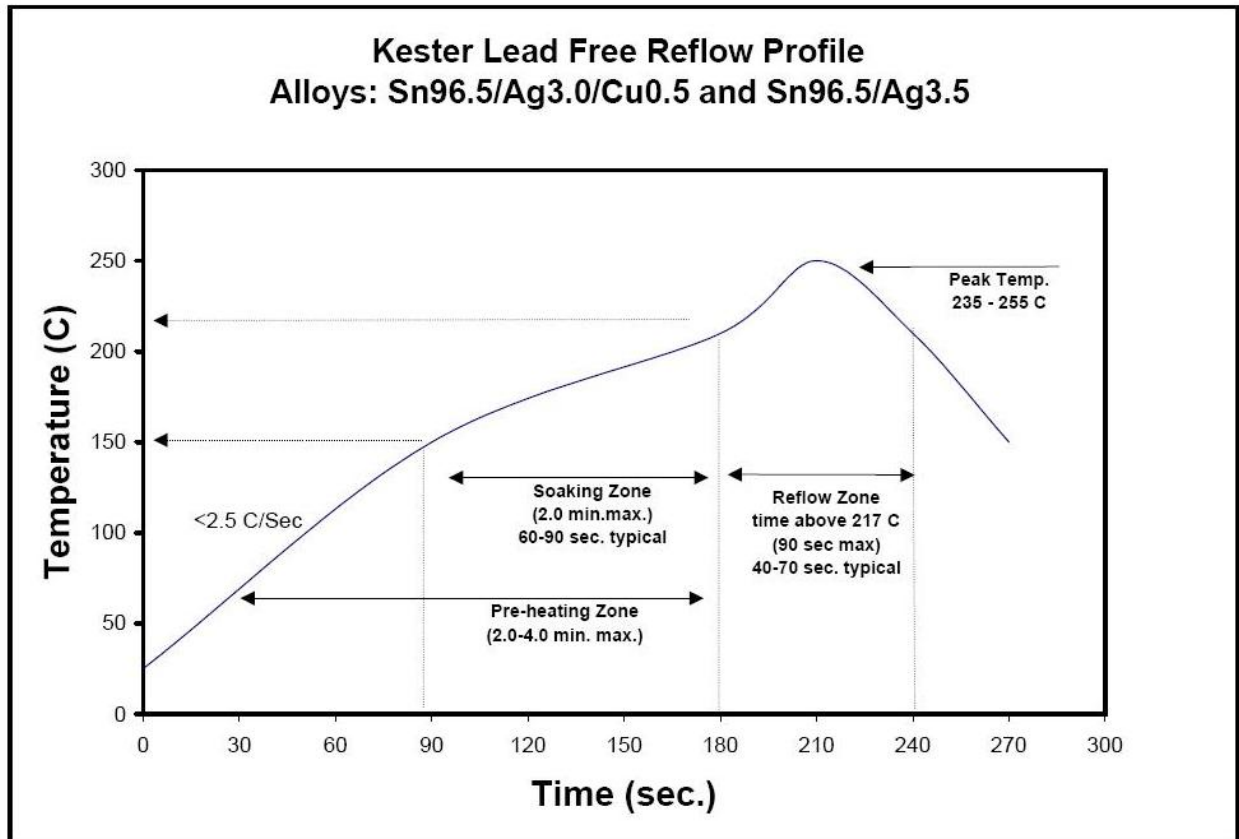
To perform the following tests: Design Qualification Test, Please see test plan.

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-102905-TST-01A

TYPICAL OVEN PROFILE (Soldering Parts to Test Boards)

FLOWCHARTS**Gas Tight**

TEST STEP	GROUP A 8 Points for signal
01	LLCR-1
02	Gas Tight
03	LLCR-2

Gas Tight = EIA-364-36A

LLCR = EIA-364-23, LLCR

20 mV Max, 100 mA Max

Use Keithley 580 or 3706 in 4 wire dry circuit mode

IR & DWV

TEST STEP	GROUP A1 2 Mated Sets Break Down Pin-to-Ground	GROUP A2 2 Unmated of Part # Being Tested Break Down Pin-to-Ground	GROUP A3 2 Unmated of Mating Part # Break Down Pin-to-Ground	GROUP B1 2 Mated Sets Pin-to-Ground
01	DWV/Break Down Voltage	DWV/Break Down Voltage	DWV/Break Down Voltage	IR & DWV at test voltage (on both mated sets and on each connector unmated)
02				Thermal Shock (Mated and Undisturbed)
03				IR & DWV at test voltage (on both mated sets and on each connector unmated)
04				Cyclic Humidity (Mated and Undisturbed)
05				IR & DWV at test voltage (on both mated sets and on each connector unmated)

DWV on Group B1 to be performed at Test Voltage

DWV test voltage is equal to 75% of the lowest break down voltage from Groups A1, A2 or A3

Thermal Shock = EIA-364-32, Table II, Test Condition I:

-55°C to +85°C 1/2 hour dwell, 100 cycles

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, Test Condition 1

FLOWCHARTS Continued**Durability/Mating/Unmating/Gaps**

TEST STEP	GROUP B1 8 points
02	Contact Gaps
	LLCR-1
10	100 Cycles (100 Total)
14	Contact Gaps
	LLCR-2
15	Thermal Shock (Mated and Undisturbed)
16	LLCR-3
17	Cyclic Humidity (Mated and Undisturbed)
18	LLCR-4

Thermal Shock = EIA-364-32, Table II, Test Condition I:

-55°C to +85°C 1/2 hour dwell, 100 cycles

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 / Unmating Forces = EIA-364-13

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

Gaps to be taken on a minimum of 20% of each part tested

LLCR = EIA-364-23, LLCR

20 mV Max, 100 mA Max

Use Keithley 580 or 3706 in 4 wire dry circuit mode

Connector Pull

TEST STEP	GROUP A1 5 Pieces 0°	GROUP B1 5 Pieces 90°
01	Pull test, Continuity	Pull test, Continuity

Monitor continuity and pull; record forces when continuity fails

ATTRIBUTE DEFINITIONS

The following is a brief, simplified description of attributes.

THERMAL SHOCK:

- 1) EIA-364-32, *Thermal Shock (Temperature Cycling) Test Procedure for Electrical Connectors*.
- 2) Test Condition 1: -55°C to +85°C
- 3) Test Time: ½ hour dwell at each temperature extreme
- 4) Number of Cycles: 100
- 5) All test samples are pre-conditioned at ambient.
- 6) 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.

LLCR:

- 1) EIA-364-23, *Low Level Contact Resistance Test Procedure for Electrical Connectors and Sockets*.
- 2) A computer program, *LLCR 221.exe*, ensures repeatability for data acquisition.
- 3) The following guidelines are used to categorize the changes in LLCR as a result from stressing
 - a. <= +5.0 mOhms: ----- Stable
 - b. +5.1 to +10.0 mOhms: ----- Minor
 - c. +10.1 to +15.0 mOhms: ----- Acceptable
 - d. +15.1 to +50.0 mOhms: ----- Marginal
 - e. +50.1 to +2000 mOhms: ----- Unstable
 - f. >+2000 mOhms: ----- Open Failure

GAS TIGHT:

To provide method for evaluating the ability of the contacting surfaces in preventing penetration of harsh vapors which might lead to oxide formation that may degrade the electrical performance of the contact system.

- 1) EIA-364-23, *Low Level Contact Resistance Test Procedure for Electrical Connectors and Sockets*.
- 2) A computer program, *LLCR 221.exe*, ensures repeatability for data acquisition.
- 3) The following guidelines are used to categorize the changes in LLCR as a result from stressing
 - a. <= +5.0 mOhms: ----- Stable
 - b. +5.1 to +10.0 mOhms: ----- Minor
 - c. +10.1 to +15.0 mOhms: ----- Acceptable
 - d. +15.1 to +50.0 mOhms: ----- Marginal
 - e. +50.1 to +2000 mOhms: ----- Unstable
 - f. >+2000 mOhms: ----- Open Failure

ATTRIBUTE DEFINITIONS

The following is a brief, simplified description of attributes.

4) Procedure:

- a. Reference document: EIA-364-36, *Test Procedure for Determination of Gas-Tight Characteristics for Electrical Connectors, Sockets and/or Contact Systems*.
- b. Test Conditions:
 - i. Class II--- Mated pairs of contacts assembled to their plastic housings.
 - ii. Reagent grade Nitric Acid shall be used of sufficient volume to saturate the test chamber
 - iii. The ratio of the volume of the test chamber to the surface area of the acid shall be 10:1.
 - iv. The chamber shall be saturated with the vapor for at least 15 minutes before samples are added.
 - v. Exposure time, 55 to 65 minutes.
 - vi. The samples shall be no closer to the chamber walls than 1 inches and no closer to the surface of the acid than 3 inches.
 - vii. The samples shall be dried after exposure for a minimum of 1 hour.
 - viii. Drying temperature 50° C
 - ix. The final LLCR shall be conducted within 1 hour after drying.

CONNECTOR PULL:

- 1) Secure cable near center and pull on connector
 - a. At 90°, right angle to cable
 - b. At 0°, in-line with cable

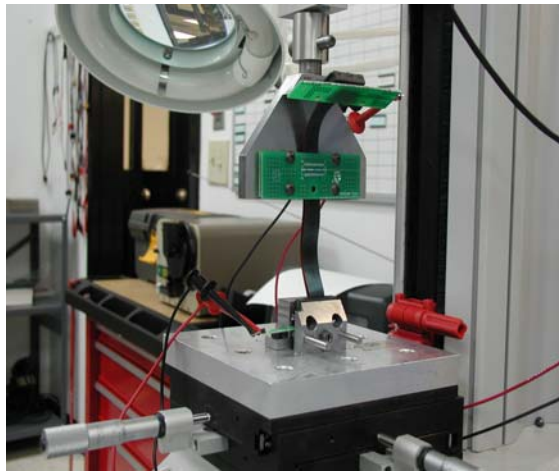


Fig. 1

(Typical set-up, actual part not depicted.)

0° Connector pull, notice the electrical continuity hook-up wires.

RESULTS**Contact Gaps**

- Initial
 - Min----- 1.3320 mm
 - Max ----- 1.4275 mm
- After 100 Cycles
 - Min----- 1.4155 mm
 - Max ----- 1.4712 mm

Cable Pull force:**SIG 0°**

- Min----- 23.26 Lbs
- Max ----- 29.11 Lbs

SIG 90°

- Min----- 27.76 Lbs
- Max ----- 34.38 Lbs

LLCR Durability (24 ground pin LLCR test points and 8 signal pin LLCR test points)**Signal Pin:**

- Initial----- 8.0 mOhms Max
- After 100 Cycles
 - ≤ +5.0 mOhms ----- 8 Points ----- Stable
 - +5.1 to +10.0 mOhms ----- 0 Points ----- Minor
 - +10.1 to +15.0 mOhms ----- 0 Points ----- Acceptable
 - +15.1 to +50.0 mOhms ----- 0 Points ----- Marginal
 - +50.1 to +2000 mOhms ----- 0 Points ----- Unstable
 - >+2000 mOhms ----- 0 Points ----- Open Failure
- After thermal shock
 - ≤ +5.0 mOhms ----- 8 Points ----- Stable
 - +5.1 to +10.0 mOhms ----- 0 Points ----- Minor
 - +10.1 to +15.0 mOhms ----- 0 Points ----- Acceptable
 - +15.1 to +50.0 mOhms ----- 0 Points ----- Marginal
 - +50.1 to +2000 mOhms ----- 0 Points ----- Unstable
 - >+2000 mOhms ----- 0 Points ----- Open Failure
- After humidity
 - ≤ +5.0 mOhms ----- 8 Points ----- Stable
 - +5.1 to +10.0 mOhms ----- 0 Points ----- Minor
 - +10.1 to +15.0 mOhms ----- 0 Points ----- Acceptable
 - +15.1 to +50.0 mOhms ----- 0 Points ----- Marginal
 - +50.1 to +2000 mOhms ----- 0 Points ----- Unstable
 - >+2000 mOhms ----- 0 Points ----- Open Failure

Ground Pin:

- Initial----- 2.5 mOhms Max
- After 100 Cycles
 - ≤ +5.0 mOhms ----- 24 Points ----- Stable
 - +5.1 to +10.0 mOhms ----- 0 Points ----- Minor
 - +10.1 to +15.0 mOhms ----- 0 Points ----- Acceptable
 - +15.1 to +50.0 mOhms ----- 0 Points ----- Marginal
 - +50.1 to +2000 mOhms ----- 0 Points ----- Unstable
 - >+2000 mOhms ----- 0 Points ----- Open Failure
- After thermal shock
 - ≤ +5.0 mOhms ----- 24 Points ----- Stable
 - +5.1 to +10.0 mOhms ----- 0 Points ----- Minor
 - +10.1 to +15.0 mOhms ----- 0 Points ----- Acceptable
 - +15.1 to +50.0 mOhms ----- 0 Points ----- Marginal
 - +50.1 to +2000 mOhms ----- 0 Points ----- Unstable
 - >+2000 mOhms ----- 0 Points ----- Open Failure

Result Continued

- After humidity
 - $\leq +5.0$ mOhms ----- 24 Points ----- Stable
 - $+5.1$ to $+10.0$ mOhms ----- 0 Points ----- Minor
 - $+10.1$ to $+15.0$ mOhms ----- 0 Points ----- Acceptable
 - $+15.1$ to $+50.0$ mOhms ----- 0 Points ----- Marginal
 - $+50.1$ to $+2000$ mOhms ----- 0 Points ----- Unstable
 - $>+2000$ mOhms ----- 0 Points ----- Open Failure

LLCR Gas Tight (24 ground pin LLCR test points and 8 signal pin LLCR test points)**Signal Pin:**

- Initial ----- 13.1 mOhms Max
- Gas-Tight
 - $\leq +5.0$ mOhms ----- 8 Points ----- Stable
 - $+5.1$ to $+10.0$ mOhms ----- 0 Points ----- Minor
 - $+10.1$ to $+15.0$ mOhms ----- 0 Points ----- Acceptable
 - $+15.1$ to $+50.0$ mOhms ----- 0 Points ----- Marginal
 - $+50.1$ to $+2000$ mOhms ----- 0 Points ----- Unstable
 - $>+2000$ mOhms ----- 0 Points ----- Open Failure

Ground Pin:

- Initial ----- 4.3 mOhms Max
- Gas-Tight
 - $\leq +5.0$ mOhms ----- 24 Points ----- Stable
 - $+5.1$ to $+10.0$ mOhms ----- 0 Points ----- Minor
 - $+10.1$ to $+15.0$ mOhms ----- 0 Points ----- Acceptable
 - $+15.1$ to $+50.0$ mOhms ----- 0 Points ----- Marginal
 - $+50.1$ to $+2000$ mOhms ----- 0 Points ----- Unstable
 - $>+2000$ mOhms ----- 0 Points ----- Open Failure

Insulation Resistance minimums, IR

- Initial
 - Mated ----- 10000Meg Ω ----- Pass
 - Unmated ----- 10000Meg Ω ----- Pass
- Thermal
 - Mated ----- 10000Meg Ω ----- Pass
 - Unmated ----- 10000Meg Ω ----- Pass
- Humidity
 - Mated ----- 10000Meg Ω ----- Pass
 - Unmated ----- 10000Meg Ω ----- Pass

Dielectric Withstanding Voltage minimums, DWV

- Minimums
 - Breakdown Voltage ----- 1100VAC
 - Test Voltage ----- 825VAC
 - Working Voltage ----- 275VAC
- Initial DWV ----- Passed
- Thermal DWV ----- Passed
- Humidity DWV ----- Passed

DATA SUMMARIES**CONTACT GAPS:**

Initial		After 100 Cycles	
Units:	mm	Units:	mm
<i>Minimum</i>	1.3302	<i>Minimum</i>	1.4155
<i>Maximum</i>	1.4275	<i>Maximum</i>	1.4712
<i>Average</i>	1.2272	<i>Average</i>	1.2764
<i>St. Dev.</i>	0.0319	<i>St. Dev.</i>	0.0169
<i>Count</i>	8	<i>Count</i>	8

Connector Pull:

SIG 0°

	Force (lbs)
Minimum	23.26
Maximum	29.11
Average	26.20

SIG 90°

	Force (lbs)
Minimum	27.76
Maximum	34.38
Average	30.57

INSULATION RESISTANCE (IR):

	Pin to Ground		
	Mated	Unmated	Unmated
Minimum	BNC5/RF316	BNC5	RF316
Initial	10000	10000	10000
Thermal	10000	10000	10000
Humidity	10000	10000	10000

DIELECTRIC WITHSTANDING VOLTAGE (DWV):

Voltage Rating Summary	
Minimum	BNC5/RF316
Breakdown Voltage	1100
Test Voltage	825
Working Voltage	275

Pin to Ground	
Initial Test Voltage	Passed
After Thermal Test Voltage	Passed
After Humidity Test Voltage	Passed

DATA SUMMARIES Continued**LLCR Durability:**

- 1) A total of 32 points were measured.
- 2) EIA-364-23, *Low Level Contact Resistance Test Procedure for Electrical Connectors and Sockets*.
- 3) A computer program, *LLCR 221.exe*, ensures repeatability for data acquisition.
- 4) The following guidelines are used to categorize the changes in LLCR as a result from stressing.
 - a. $\leq +5.0$ mOhms: ----- Stable
 - b. $+5.1$ to $+10.0$ mOhms: ----- Minor
 - c. $+10.1$ to $+15.0$ mOhms: ----- Acceptable
 - d. $+15.1$ to $+50.0$ mOhms: ----- Marginal
 - e. $+50.1$ to $+2000$ mOhms ----- Unstable
 - f. $>+2000$ mOhms: ----- Open Failure

Ground Pin:

Date	Dec. 20 2010	Dec. 20 2010	Jan. 03 2011	Jan. 13 2011
am Temp C	23	23	23	20
RH	42%	45%	50%	40%
Name	Peter Chen	Peter Chen	Peter Chen	Peter Chen
hm values	Actual Initial	Delta 100 Cycles	Delta Thermal	Delta Humidity
Average	1.8	0.1	1.6	1.0
St. Dev.	0.4	0.6	1.6	1.0
Min	1.2	-0.9	-0.3	-0.6
Max	2.5	1.3	4.5	2.8
Count	24	24	24	24

How many samples are being tested?

8

How many contacts are on each board?

3

	Stable	Minor	Acceptable	Marginal	Unstable	Open
100 Cycles	24	0	0	0	0	0
Thermal	24	0	0	0	0	0
Humidity	24	0	0	0	0	0

DATA SUMMARIES Continued

Signal Pin:

Date	Dec. 20 2010	Dec. 20 2010	Jan. 03 2011	Jan. 13 2011
am Temp C	23	23	23	20
RH	42%	45%	50%	40%
Name	Peter Chen	Peter Chen	Peter Chen	Peter Chen
hm values	Actual Initial	Delta 100 Cycles	Delta Thermal	Delta Humidity
Average	7.5	0.0	0.1	0.3
St. Dev.	0.3	0.2	0.3	0.3
Min	7.1	-0.5	-0.3	0.0
Max	8.0	0.4	0.5	0.7
Count	8	8	8	8

How many samples are being tested?

8

How many contacts are on each board?

1

	Stable	Minor	Acceptable	Marginal	Unstable	Open
100 Cycles	8	0	0	0	0	0
Thermal	8	0	0	0	0	0
Humidity	8	0	0	0	0	0

DATA SUMMARIES Continued**GAS TIGHT:**

- 1) A total of 32 points were measured.
- 2) EIA-364-23, *Low Level Contact Resistance Test Procedure for Electrical Connectors and Sockets*.
- 3) A computer program, *LLCR 221.exe*, ensures repeatability for data acquisition.
- 4) The following guidelines are used to categorize the changes in LLCR as a result from stressing.
 - a. $\leq +5.0$ mOhms: ----- Stable
 - b. $+5.1$ to $+10.0$ mOhms: ----- Minor
 - c. $+10.1$ to $+15.0$ mOhms: ----- Acceptable
 - d. $+15.1$ to $+50.0$ mOhms: ----- Marginal
 - e. $+50.1$ to $+2000$ mOhms: ----- Unstable
 - f. $>+2000$ mOhms: ----- Open Failure

Ground Pin:

Date	Jan. 06 2011	Jan. 07 2011
Room Temp C	23	23
RH	50%	50%
Name	Peter Chen	Peter Chen
Room values	Actual Initial	Delta After Gas Tight
Average	2.5	0.3
St. Dev.	0.8	0.7
Min	1.8	-0.6
Max	4.3	1.9
Count	24	24

How many samples are being tested?**8****How many contacts are on each board?****3**

	Stable	Minor	Acceptable	Marginal	Unstable	Open
After Gas Tight	24	0	0	0	0	0

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Part description: BNC5/RF316	

DATA SUMMARIES Continued

Signal Pin:

Date	Jan. 06 2011	Jan. 07 2011
Room Temp C	23	23
RH	50%	50%
Name	Peter Chen	Peter Chen
Humidity values	Actual Initial	Delta After Gas Tight
Average	12.5	0.0
St. Dev.	0.4	0.1
Min	12.1	-0.1
Max	13.1	0.2
Count	8	8

How many samples are being tested?	<u>8</u>
How many contacts are on each board?	<u>1</u>

	Stable	Minor	Acceptable	Marginal	Unstable	Open
After Gas Tight	8	0	0	0	0	0

DATA**CONTACT GAPS**

Initial									
Units: mm									
Pos.#	B1	B2	B3	B4	B5	B6	B7	B8	B9
1	1.3812	1.3302	1.4013	1.4095	1.4275	1.3528	1.3621	1.3799	1.3812
After 500 Cycles									
Units: mm									
Pos.#	B1	B2	B3	B4	B5	B6	B7	B8	B9
1	1.4712	1.4155	1.4357	1.4375	1.4445	1.4218	1.4335	1.4277	1.4712

INSULATION RESISTANCE (IR):

Initial Insulation Resistance	
Measured In Meg Ohms	

Pin to Ground			
Mated		A	Unmated B
X		X	X
Sample#	BNC5/RF316	BNC5	RF316
116238-005	10000	10000	10000
116238-006	10000	10000	10000

Thermal Insulation Resistance	
Measured In Meg Ohms	

Pin to Ground			
Mated		A	Unmated B
x		x	x
Sample#	BNC5/RF316	BNC5	RF316
116238-005	10000	10000	10000
116238-006	10000	10000	10000

DATA Continued**Humidity Insulation Resistance**

Measured In Meg Ohms

Pin to Ground			
	Mated	A	Unmated B
	x	x	x
Sample#	BNC5/RF316	BNC5	RF316
116238-005	10000	10000	10000
116238-006	10000	10000	10000

DIELECTRIC WITHSTANDING VOLTAGE (DWV):**Initial Breakdown Voltage**Test Voltage *Until Breakdown Occurs*

Pin to Ground			
	Mated	A	Unmated B
	x		
Sample#	BNC5/RF316	BNC5	RF316
116238-001	1300	1950	2200
116238-002	1100	1800	1950

Initial DWV

Test Voltage= 825

Pin to Ground			
	Mated	A	Unmated B
Sample#	BNC5/RF316	BNC5	RF316
116238-005	825	825	825
116238-006	825	825	825

DATA Continued**Thermal Test Voltage**

Test Voltage= 825

Pin to Ground

	Mated	A	Unmated	B
Sample#	BNC5/RF316	BNC5	RF316	
116238-005	825	825	825	
116238-006	825	825	825	

Humidity Test Voltage

Test Voltage= 825

Pin to Ground

	Mated	A	Unmated	B
Sample#	BNC5/RF316	BNC5	RF316	
116238-005	825	825	825	
116238-006	825	825	825	

Cable Pull force:**SIG 0°**

Sample #	Force (lbs)
1	28.78
2	23.26
3	24.78
4	25.07
5	29.11

SIG 90°

Sample #	Force (lbs)
1	27.76095
2	29.48085
3	28.7091
4	34.37595
5	32.5458

DATA Continued**LLCR Durability:****Signal Pin:**

	mOhm values	Actual	Delta	Delta	Delta
Board	Position	Initial	100 Cycles	Thermal	Humidity
1	P1	7.4	-0.2	0.3	0.7
1	P2	8.0	-0.5	-0.2	0.6
1	P3	7.6	0.4	-0.3	0.7
1	P4	7.2	0.2	0.1	0.6
2	P1	7.7	0.0	-0.2	0.0
2	P2	7.6	0.0	0.3	0.0
2	P3	7.1	0.0	0.5	0.0
2	P4	7.3	0.1	-0.1	0.0

Ground Pin:

	mOhm values	Actual	Delta	Delta	Delta
Board	Position	Initial	100 Cycles	Thermal	Humidity
1	P1	2.2	-0.9	0.3	1.3
1	P2	2.2	-0.9	0.2	1.3
1	P3	2.2	-0.9	0.2	1.3
1	P4	1.4	0.7	2.5	0.9
1	P5	1.4	0.6	2.5	0.6
1	P6	1.4	0.6	2.4	1.2
1	P7	2.2	0.0	-0.1	0.1
1	P8	2.3	-0.1	-0.3	0.3
1	P9	2.3	-0.2	-0.2	-0.4
1	P10	1.3	1.3	0.7	0.7
1	P11	1.2	1.2	0.9	1.3
1	P12	1.3	1.2	0.8	0.7
2	P1	2.4	-0.1	4.5	-0.5
2	P2	2.5	-0.1	4.3	-0.6
2	P3	2.4	-0.2	4.4	-0.5
2	P4	1.6	0.1	0.9	2.1
2	P5	1.7	-0.1	0.8	1.9
2	P6	1.6	0.1	1.0	2.0
2	P7	1.9	-0.1	0.7	2.8
2	P8	1.9	0.0	0.6	2.7
2	P9	2.0	-0.1	0.0	2.7
2	P10	1.6	-0.2	3.4	0.6
2	P11	1.5	-0.1	3.5	0.6
2	P12	1.5	-0.1	3.4	0.7

DATA Continued**LLCR Gas Tight:
Signal Pin:**

	mOhm values	Actual	Delta
Board	Position	Initial	After Humidity
1	P1	13.0	0.0
1	P2	12.5	0.0
1	P3	12.2	0.1
1	P4	13.1	0.0
2	P1	12.5	-0.1
2	P2	12.1	-0.1
2	P3	12.5	0.2
2	P4	12.2	-0.1

Ground Pin:

	mOhm values	Actual	Delta
Board	Position	Initial	After Humidity
1	P1	2.2	0.1
1	P2	2.2	0.1
1	P3	2.2	0.0
1	P4	2.0	0.1
1	P5	2.0	0.1
1	P6	2.0	0.1
1	P7	2.0	1.9
1	P8	2.0	1.9
1	P9	2.0	1.9
1	P10	2.0	0.2
1	P11	2.1	0.2
1	P12	2.1	0.0
2	P1	2.3	0.1
2	P2	2.3	0.2
2	P3	2.3	0.2
2	P4	4.3	-0.6
2	P5	4.3	-0.6
2	P6	4.2	-0.6
2	P7	3.5	0.8
2	P8	3.4	0.8
2	P9	3.5	0.8
2	P10	1.8	-0.1
2	P11	1.8	-0.1
2	P12	1.8	-0.1

EQUIPMENT AND CALIBRATION SCHEDULES**Equipment #:** HZ-MO-03**Description:** Micro-ohmmeter**Manufacturer:** Keithley**Model:** 580**Serial #:** 297288**Accuracy:** Last Cal: 2010-9-21, Next Cal: 2011-9-20**Equipment #:** HZ-TCT-01**Description:** Normal force analyzer**Manufacturer:** Mecmesin Multitester**Model:** Mecmesin Multitester 2.5-i**Serial #:** 08-1049-04**Accuracy:** Last Cal: 2010-4-28, Next Cal: 2011-4-27**Equipment #:** HZ-THC-01**Description:** Humidity transmitter**Manufacturer:** Thermtron**Model:** HMM30C**Serial #:** D0240037**Accuracy:** Last Cal: 2010-6-1, Next Cal: 2011-5-31**Equipment #:** HZ-MO-01**Description:** Micro-ohmmeter**Manufacturer:** Keithley**Model:** 2700**Serial #:** 1199807**Accuracy:** Last Cal: 2010-6-1, Next Cal: 2011-5-31**Equipment #:** HZ-TSC-01**Description:** Thermal Shock transmitter**Manufacturer:** Keithley**Model:** 10-VT14994**Serial #:** VTS-3-6-6-SC/AC**Accuracy:** Last Cal: 2010-11-1, Next Cal: 2011-11-1