



Project Number: NA		Tracking Code: 02120640						
Requested by: W. Ouyang			Date: 3/22/02		Product Rev: See Front Page		nt Page	
Part #: See Front Page Lot #: 0			Tech: G.Lewis			Eng: J	Eng: J. Tozier	
Part description: 0.8mm, 0.63	35mm, 0.5mm	Quiet &	Basic High Spo	eed Product	ts	Qt	y to test: 210	
Test Start: 3/29/02	Test Comple	eted: 6/6/0)2					

Mating - Unmating Summary Report

PARTS DESCRIPTIONS

TERMINAL SIDE	SOCKET SIDE
BTE-020-01-F-D-A	BSE-020-01-F-D-A
BTE-060-01-F-D-A	BSE-060-01-F-D-A
BTE-120-01-F-D-A	BSE-120-01-F-D-A
REV: Q	REV: D
BTS-025-01-F-D-A	BSS-025-01-F-D-A
BTS-075-01-F-D-A	BSS-075-01-F-D-A
BTS-150-01-F-D-A	BSS-150-01-F-D-A
REV: B	REV: A
BTH-030-01-F-D-A	BSH-030-01-F-D-A
BTH-090-01-F-D-A	BSH-090-01-F-D-A
BTH-150-01-F-D-A	BSH-150-01-F-D-A
REV: K	REV: D
MIT-019-01-F-D-A	MIS-133-01-F-D-A
MIT-076-01-F-D-A	MIS-019-01-F-D-A
MIT-133-01-F-D-A	MIS-076-01-F-D-A
REV: C	REV: C
QTE-020-01-F-D-A	QSE-020-01-F-D-A
QTE-060-01-F-D-A	QSE-060-01-F-D-A
QTE-100-01-F-D-A	QSE-100-01-F-D-A
REV: X	REV: R
QTS-025-01-F-D-A	QSS-025-01-F-D-A
QTS-075-01-F-D-A	QSS-075-01-F-D-A
QTS-125-01-F-D-A	QSS-125-01-F-D-A
REV: A	REV: B
QTH-030-01-F-D-A	QSH-030-01-F-D-A
QTH-090-01-F-D-A	QSH-090-01-F-D-A
QTH-150-01-F-D-A	QSH-150-01-F-D-A
REV: N	REV: F

File: J:\QA LAB\Test Programs\TC0106-0334\tc0106—0334.doc



Project Number: NA	Tracking Co	Tracking Code: 02120640								
Requested by: W. Ouyang	Date: 3/22/02		Product Rev: S	See Front Page						
Part #: See Front Page	03/18/02	Tech: G.I	ewis	Eng: J. Tozier						
Part description: 0.8mm, 0.63	Part description: 0.8mm, 0.635mm, 0.5mm Quiet & Basic High Speed Products Qty to test: 210									
Test Start: 3/29/02	Test Completed: 6/	6/02								

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: Mating - Unmating

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 testing were cleaned according to TLWI-0001:
 - a) Sample test boards are to be ultrasonically cleaned after test lead attachment, preparation and/or soldering using the following process.
 - b) Immerse the sample test boards into the Branson 3510 cleaner which contains Kyzen Ionox HC1 (or equivalent) cleaning solution with the following conditions:

i) Temperature: 55° C+/- 5° C
 ii) Frequency: 40 KHz

iii) Immersion Time: 5 to 10 Minutes

c) Sample test boards are then slowly removed and placed into the Branson 3510 cleaner which contains deionized water with the following conditions:

i) Temperature: $55^{\circ} \text{ C} + /-5^{\circ} \text{ C}$

ii) Frequency: 40 KHz

iii) Immersion Time: 5 to 10 Minutes

- d) Sample test boards are then removed and placed in a beaker, on a hot plate with a magnetic stirrer containing deionized water warmed to 55° C +/- 5° C for 1/2 to 1 minute (Use 55° C as target)
- e) Upon removal, the sample test boards are then rinsed for 1/2 to 1 minute in room temperature free flowing deionized water.
- f) After the final rinse, the sample test boards are to be dried in an air-circulating oven for 10 to 15 minutes at 50° C +/- 5° C (Use 50° C as target)
- g) Sample test boards are then allowed to set and recover to room ambient condition prior to testing.
- 4) Parts not intended for testing LLCR and DWV/IR are visually inspected and cleaned if necessary.
- 5) Any additional preparation will be noted in the individual test procedures.



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Part #: See Front Page	03/18/02	Tech: G.I	ewis	Eng: J. Tozier						
Part description: 0.8mm, 0.63	Part description: 0.8mm, 0.635mm, 0.5mm Quiet & Basic High Speed Products Qty to test: 210									
Test Start: 3/29/02	Test Completed: 6/	6/02								

ATTRIBUTE DEFINITION

Following is a brief, simplified description of the attribute measured.

MATING/UNMATING:

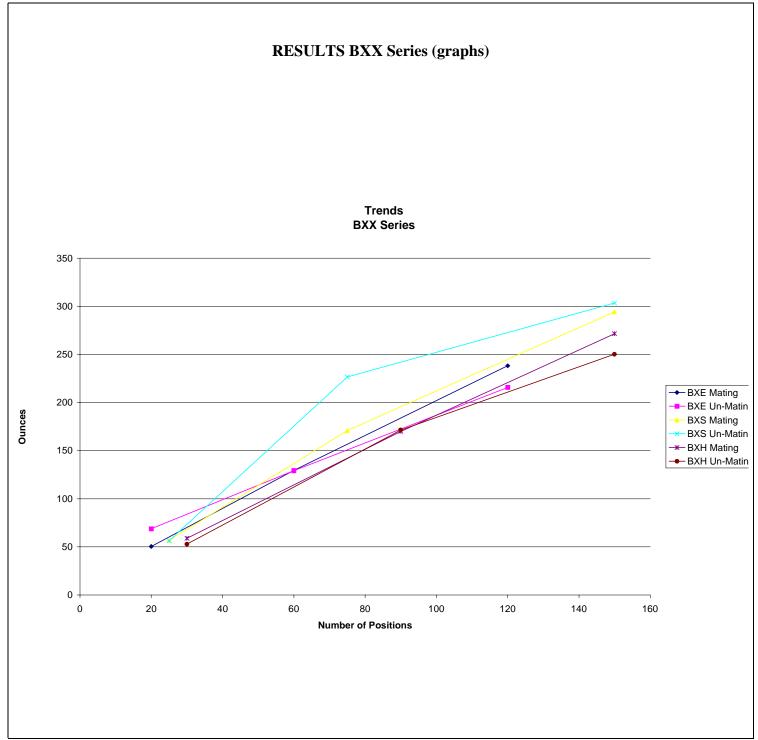
- 1) Reference document: EIA-364-13, *Mating and Unmating Forces Test Procedure for Electrical Connectors*.
- 2) The full insertion position was to within 0.003" to 0.004" of the plug bottoming out in the receptacle to prevent damage to the system under test.
- 3) One of the mating parts is secured to a floating X-Y table to prevent damage during cycling.
- 4) Mating/Unmating forces were evaluated on the first cycle.
- 5) Number of Samples tested: 5 per series

RESULTS BXX Series (data)

	g Forces BXE Series Maximums		
0	BXE 20 Positions	57.1 oz.	
0	BXE 60 Positions	133.2 oz.	
0	BXE 120 Positions	246.2 oz.	
Unmat	ing Forces BXE Series Maximum	s	
0	BXE 20 Positions	77.4 oz.	
0	BXE 60 Positions	142.1 oz.	
0	BXE 120 Positions	236.5 oz.	
Mating	g Forces BXS Series Maximums		
	BXS 25 Positions	61.0 oz.	
0	BXS 75 Positions	179.8 oz.	
0	BXS 150 Positions	320.4 3 oz.	
Unmat	ing Forces BXS Series Maximum	S	
0	BXS 25 Positions	59.5 oz.	
0	BXS 75 Positions	234.7 oz.	
0	BXS 150 Positions	325.0 oz.	
Mating	g Forces BXH Series Maximums		
0	BXH 30 Positions	65.3 oz.	
0	BXH 90 Positions	175.5 oz.	
0	BXH 150 Positions	280.0 oz.	
	ing Forces BXH Series Maximum		
0	BXH 30 Positions	66.6 oz.	
0	BXH 90 Positions	182.2 oz	
0	BXH 150 Positions	273.6 oz.	



Project Number: NA	Tracking Code: 02120640									
Requested by: W. Ouyang			Date: 3/22/02		Product Rev: See Front Page		Front Page			
Part #: See Front Page	Part #: See Front Page Lot #: 0			/18/02 Tech: G.Lewis F			ng: J. Tozier			
Part description: 0.8mm, 0.63	Part description: 0.8mm, 0.635mm, 0.5mm Quiet & Basic High Speed Products Qty to test: 210									
Test Start: 3/29/02	Test Completed: 6/6/02									





Project Number: NA	Tracking Co	Tracking Code: 02120640							
Requested by: W. Ouyang			Date: 3/22/02 Prod		Product Rev: S	Product Rev: See Front Page			
Part #: See Front Page Lot #: 03			3/18/02	Tech: G.Lewis Er			ng: J. Tozier		
Part description: 0.8mm, 0.63	Part description: 0.8mm, 0.635mm, 0.5mm Quiet & Basic High Speed Products Qty to test: 210								
Test Start: 3/29/02	Test Completed: 6/6/02								

RESULTS MIS Series (data) Mating Forces MIS Series Maximums MIS 1 Bank------115.2 oz. MIS 4 Bank----- 360.5 oz. MIS 7 Bank----- 694.6 oz. **Unmating Forces MIS Series Maximums** MIS 1 Bank------ 109.3 oz. MIS 4 Bank------293.3 oz. MIS 7Bank ----- 541.1 oz. **Trends MIX Series** 700.0 600.0 500.0 400.0 ◆ MIS Mating MIS Un-Matin 300.0 200.0 100.0 0.0 **Number of Banks**



Project Number: NA			Tracking Code: 02120640					
1 and a system of the system o			Date: 3/22/02 Product Rev: Se			See 1	e Front Page	
Part #: See Front Page Lot #: 03		/18/02 Tech: G.Le		ewis Eng: J. Tozier		g: J. Tozier		
Part description: 0.8mm, 0.63	35mm, 0.5mn	n Quiet &	Basic High Spo	eed Product	ts		Qty to test: 210	
Test Start: 3/29/02	Test Compl	eted: 6/6/0)2					

RESULTS QXX Series (data)

•	Mating	Forces	QXE Series	Maximums
---	--------	---------------	-------------------	----------

- O QXE 1 Bank ------60.0 oz.
- O QXE 3 Bank ----- 163.8 oz.
- O QXE 5 Bank------287.2 oz.

Unmating Forces QXE Series Maximums

- QXE 1 Bank------64.2 oz.
- O QXE 3 Bank ------ 169.3 oz.
- O QXE 5 Bank ----- 302.1 oz.

• Mating Forces QXS Series Maximums

- O QXS 1 Bank ------60.6 oz.
- O QXS 3 Bank ------ 213.4 oz.
- o QXS 5 Bank ----- 339.2 oz.

• Unmating Forces QXS Series Maximums

- OXS 1 Bank ------62.7 oz.
- OXS 3 Bank ------ 187.4 oz.
- o QXS 5 Bank ------264.3 oz.

• Mating Forces QXH Series Maximums

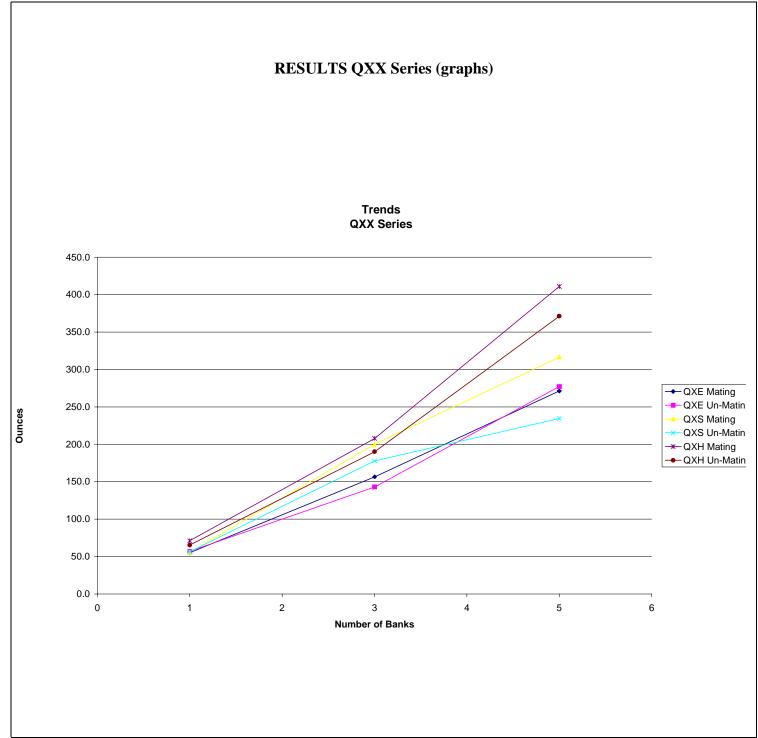
- OXH 1 Bank-----72.0 oz.
- O QXH 3 Bank------232.6 oz.
- O QXH 5 Bank------ 434.6 oz.

• Unmating Forces QXH Series Maximums

- OXH 1 Bank-----74.9 oz.
- O QXH 3 Bank------213.3 oz.
- O QXH 5 Bank----- 396.2 oz.



Project Number: NA	Tracking Co	Tracking Code: 02120640							
Requested by: W. Ouyang			Date: 3/22/02 Product Rev: Se		See F	e Front Page			
Part #: See Front Page Lot #: 03			3/18/02	7/02 Tech: G.Lewis E			ng: J. Tozier		
Part description: 0.8mm, 0.63	Part description: 0.8mm, 0.635mm, 0.5mm Quiet & Basic High Speed Products Qty to test: 210								
Test Start: 3/29/02	Test Compl	eted: 6/6/0	02			•			





Project Number: NA	Tracking Co	Tracking Code: 02120640								
Requested by: W. Ouyang	Date: 3/22/02		Product Rev: S	See Front Page						
Part #: See Front Page	03/18/02	Tech: G.I	Lewis	Eng: J. Tozier						
Part description: 0.8mm, 0.63	Part description: 0.8mm, 0.635mm, 0.5mm Quiet & Basic High Speed Products Qty to test: 210									
Test Start: 3/29/02	Test Completed: 6	/6/02								

DATA SUMMARY

MATING/UNMATING:

BXE Series

		2	0 Po	sition		6	0 Po	sition		120 Position			
	N	Mating		Umma	ating	Matir	ng	Umma	ting	Mati	ing	Umma	ating
	<u>C</u>	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	Lbs	<u>Oz</u>	Lbs	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>
Minimu	m 48	8.3	3.0	59.0	3.7	123.0	7.7	118.7	7.4	224.3	14.0	190.4	11.9
Maximu	m 5	7.1	3.6	77.4	4.8	133.3	8.3	142.1	8.9	246.2	15.4	236.5	14.8
Averag	ge <i>5</i> (0.4	3.2	68.8	4.3	129.5	8.1	129.1	8.1	238.2	14.9	215.7	13.5

BXS Series

		25 Position					75 Po	sition		150 Position					
		Mati	ng	Umma	ating	Mating		Ummating		Mating		Ummating			
		<u>Oz</u>	Lbs	<u>Oz</u>	Lbs	<u>Oz</u>	Lbs	<u>Oz</u>	Lbs	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>		
Ī	Minimum	53.0	3.3	53.0	3.3	161.1	10.1	214.7	13.4	271.2	17.0	279.8	17.5		
	Maximum	61.0	3.8	59.5	3.7	179.8	179.8 11.2		14.7	320.5	20.0	325.0	20.3		
	Average	56.8	3.5	56.4	3.5	170.8	10.7	226.6	14.2	294.3	18.4	303.4	19.0		

BXH Series

	3	0 Po	sition			90 Po	sition		150 Position				
	Mating Ummating			Mating Ummating			ating	Mati	ing	Ummating			
	<u>Oz</u>	Lbs	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>	
Minimum	49.4	3.1	44.3	2.8	166.9	10.4	141.6	8.9	260.5	16.3	221.3	13.8	
Maximum	65.3	4.1	66.6	4.2	175.5	175.5 11.0		11.4	280.0	17.5	273.6	17.1	
Average	58.9	3.7	52.8	3.3	170.0	10.6	171.5	10.7	271.6	17.0	250.2	15.6	



Project Number: NA		Tracking Co	Tracking Code: 02120640					
Requested by: W. Ouyang		Date: 3/22/02		Product Rev: S	See Front Page			
Part #: See Front Page	Lot #:	: 03/18/02 Tech: G.Lewis E			Eng: J. Tozier			
Part description: 0.8mm, 0.63	35mm, 0.5mm Quiet	& Basic High Sp	eed Product	ts	Qty to test: 2	210		
Test Start: 3/29/02	Test Completed: 6	/6/02						

DATA SUMMARY continued

MATING/UNMATING:

MIS Series

		One Bank					Four	Bank		Seven Bank				
		Mating Ummating				Mati	Mating Ummating			Mati	ng	Ummating		
		<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	Lbs	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	Lbs	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	Lbs	
l	Minimum	81.0	5.1	85.9	5.4	303.2	19.0	203.2	12.7	579.7	36.2	457.1	28.6	
ľ	Maximum	115.2	7.2	109.3	6.8	360.5	22.5	293.3	18.3	694.6	43.4	541.1	33.8	
P	verage	100.3	6.3	98.7	6.2	332.5	20.8	249.5	15.6	641.0	40.1	508.3	31.8	



Project Number: NA		Tracking Co	Tracking Code: 02120640					
Requested by: W. Ouyang		Date: 3/22/02 Product Re			See Front Page			
Part #: See Front Page	Lot #:	03/18/02 Tech: G.Lewis En			Eng: J. Tozier			
Part description: 0.8mm, 0.6	35mm, 0.5mm Quiet	& Basic High Sp	eed Produc	ts	Qty to test: 210			
Test Start: 3/29/02	Test Completed: 6/	6/02			·			

DATA SUMMARY continued

MATING/UNMATING:

QXE Series

	One Bank					Three	Bank		Five Bank				
	Mati	ng	Umma	ating	Mati	ng	Ummating		Mating		Ummating		
	<u>Oz</u>	Lbs	<u>Oz</u>	Lbs	Oz	Lbs	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	Lbs	<u>Oz</u>	Lbs	
Minimum	52.2	3.3	53.3	3.3	151.4	9.5	117.0	7.3	259.7	16.2	261.1	16.3	
Maximum	60.0	3.8	64.2	4.0	163.8	163.8 10.2		10.6	287.2	18.0	302.1	18.9	
Average	55.0	3.4	57.0	3.6	156.6	9.8	143.1	8.9	271.3	17.0	277.3	17.3	

QXS Series

		One Bank					Three	Bank		Five Bank				
		Mating Ummating			Mati	ng	Umma	ating	Mati	ng	Ummating			
		<u>Oz</u>	Lbs	<u>Oz</u>	Lbs	<u>Oz</u>	Lbs	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	Lbs	<u>Oz</u>	Lbs	
	Minimum	51.8	3.2	48.3	3.0	179.8	179.8 11.2		9.9	301.8	18.9	201.4	12.6	
N	Maximum	60.6	3.8	62.7	3.9	213.4	213.4 13.3		11.7	339.2	21.2	264.3	16.5	
A	verage	55.6	3.5	56.4	3.5	200.2	12.5	177.7	11.1	316.5	19.8	234.4	14.7	

QXH Series

			One	Bank			Three	Bank		Five Bank				
		Mati	ng	Umma	ating	Mating		Ummating		Mating		Ummating		
		<u>Oz</u>	Lbs	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>	Oz	Lbs	<u>Oz</u>	Lbs	Oz	<u>Lbs</u>	
ĺ	Minimum	69.6	4.4	57.1	3.6	193.6	12.1	169.4	10.6	395.0	24.7	347.0	21.7	
	Maximum	72.0	4.5	74.9	4.7	232.6	232.6 14.5		13.3	434.6	27.2	396.2	24.8	
I	Average	71.1	4.4	65.2	4.1	207.8	13.0	190.1	11.9	410.9	25.7	371.2	23.2	



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Part description: 0.8mm, 0.63	35mm, 0.5mm Quiet	& Basic High Sp	eed Produc	ts	Qty to test: 210			
Test Start: 3/29/02	Test Completed: 6/	6/02						

DATA

MATING/UNMATING:

BXE Series

Test Date:			5/29/2002					5/29/2002				5/29/2002	
Operator:			GL					GL				GL	
Temperature (C)	:		25					25				25	
Humidity (RH):			39%					39%				39%	
Equipment Code	Numb	er	59					59				59	
Load Cell Code N	Numbe	r	60					60				60	
Readout Code No	umber												
Contact Descript	ion				_								
Contact Used In:			BSE/B	BTE				BSE/B'	ΤЕ			BSE/E	BTE
Contact Mates W	/ith:												
		20	Position				60 F	osition			120	Position	
	Mati	ng	Umma	ting		Mat	ing	Ummat	ing	Mat	ing	Umma	ting
Sample#	<u>Oz</u>	Lbs	<u>Oz</u>	<u>Lbs</u>	L	<u>Oz</u>	Lbs	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	Lbs	<u>Oz</u>	<u>Lbs</u>
1	48.5	3.0	65.4	4.1		131.5	8.2	118.7	7.4	224.3	14.0	204.3	12.8
2	48.8	3.1	70.4	4.4		130.2	8.1	124.8	7.8	243.5	15.2	190.4	11.9
3	57.1	3.6	77.4	4.8		129.4	8.1	129.3	8.1	245.6	15.4	233.6	14.6
4	49.3	3.1	59.0	3.7		133.3	8.3	142.1	8.9	231.4	14.5	213.8	13.4



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Part description: 0.8mm, 0.63	35mm, 0.5mm Quiet	& Basic High Sp	eed Produc	ts	Qty to test: 210			
Test Start: 3/29/02	Test Completed: 6/	6/02						

DATA continued

MATING/UNMATING:

BXS Series

Test Date:	5/29/2002	5/29/2002	5/29/2002
Operator:	GL	GL	GL
Temperature (C):	25	25	25
Humidity (RH):	37%	37%	37%
Equipment Code Number	59	59	59
Load Cell Code Number	60	60	60
Readout Code Number			
Contact Description			
Contact Used In:	BSS/BTS	BSS/BTS	BSS/BTS
Contact Mates With:			

	25 Position			
	Mating		Mating Umma	
Sample#	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>
1	53.0	3.3	55.8	3.5
2	61.0	3.8	58.1	3.6
3	56.0	3.5	53.0	3.3
4	56.8	3.6	55.5	3.5
5	57.1	3.6	59.5	3.7

75 Position					
Mating		Ummat	ing		
<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>		
179.8	11.2	232.0	14.5		
171.8	10.7	234.7	14.7		
177.3	11.1	225.3	14.1		
161.1	10.1	226.2	14.1		
164.0	10.3	214.7	13.4		

150 Position				
Mat	ing	Ummating		
<u>Oz</u>	Lbs	<u>Oz</u>	Lbs	
320.5	20.0	324.2	20.3	
271.2	17.0	289.6	18.1	
287.7	18.0	279.8	17.5	
289.3	18.1	298.6	18.7	
302.9	18.9	325.0	20.3	



DATA continued

MATING/UNMATING:

Contact Used In:

BXH Series

Test Date:	6/6/2002	6/6/2002
Operator:	GL	GL
Temperature (C):	25	25
Humidity (RH):	38%	38%
Equipment Code Number	59	59
Load Cell Code Number	60	60
Readout Code Number		
Contact Description		

BSH/BTH

BSH/BTH	BSH/BTH

	30 Position			
	Mati	Mating Ummating		
Sample#	<u>Oz</u>	Lbs	<u>Oz</u>	<u>Lbs</u>
1	65.3	4.1	46.1	2.9
2	64.6	4.0	66.6	4.2
3	49.4	3.1	56.5	3.5
4	59.5	3.7	44.3	2.8
5	55.7	3.5	50.4	3.2

90 Position					
Mating		Ummat	ing		
<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	Lbs		
167.4	10.5	182.2	11.4		
175.5	11.0	141.6	8.9		
166.9	10.4	174.4	10.9		
169.4	10.6	178.9	11.2		
170.6	10.7	180.2	11.3		

150 Position				
Mating		Umma	ting	
Oz	Lbs	<u>Oz</u>	Lbs	
277.4	17.3	221.3	13.8	
270.7	16.9	258.2	16.1	
269.6	16.9	272.0	17.0	
280.0	17.5	273.6	17.1	
260.5	16.3	225.9	14.1	

6/6/2002 GL

> 25 38%

> > 59 60



DATA continued

MATING/UNMATING:

MIS Series

Test Date:	5/30/2002		5/30/2002		5/30/2002	
Operator:	GL		GL		GL	
Temperature (C):	21		21		21	
Humidity (RH):	48%		48%		48%	
Equipment Code Number	59		59		59	
Load Cell Code Number	60		60		60	
Readout Code Number						
Contact Description		_				
Contact Used In:	MIS/MIT		MIS/MIT	Γ	MIS/M	IT
Contact Mates With:						

	One Bank			
	Matir	ıg	Ummat	ing
Sample#	Oz Lbs		<u>Oz</u>	Lbs
1	81.0	5.1	85.9	5.4
2	100.8	6.3	109.3	6.8
3	115.2	7.2	91.0	5.7
4	102.1	6.4	107.4	6.7
5	102.4	6.4	99.7	6.2

Four Bank					
Mating		Ummating			
<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>		
332.0	20.8	293.3	18.3		
337.1	21.1	231.4	14.5		
303.2	19.0	203.2	12.7		
360.5	22.5	276.5	17.3		
329.8	20.6	243.4	15.2		

	Seven Bank				
Mating		Ummating			
Oz	Lbs	<u>Oz</u>	Lbs		
598.2	37.4	457.1	28.6		
677.8	42.4	535.2	33.5		
654.7	40.9	510.4	31.9		
694.6	43.4	541.1	33.8		
579.7	36.2	497.6	31.1		



Project Number: NA		Tracking Co	Tracking Code: 02120640					
Requested by: W. Ouyang	Date: 3/22/02	Date: 3/22/02 Produ			Front Page			
Part #: See Front Page	03/18/02)3/18/02 Tech: G.Le			Eng: J. Tozier			
Part description: 0.8mm, 0.63	5mm, 0.5mm Quiet	& Basic High Sp	eed Product	ts		Qty to test: 210		
Test Start: 3/29/02	Test Completed: 6	/6/02			•			

DATA continued

MATING/UNMATING:

QXE Series

Test Date:	6/3/2002	(6/3/2002		6/3/2002	
Operator:	GL		GL		GL	
Temperature (C):	21		21		21	
Humidity (RH):	51%		51%		51%	
Equipment Code Number	59		59		59	
Load Cell Code Number	60		60		60	
Readout Code Number						
Contact Description						
Contact Used In:	QSE/QTE		QSE/Q	ГЕ	QSE/Q'	ГЕ
		<u> </u>		·		

	One Bank						Thre	e Bank	•		Five Bank			
	Mati	ng	Ummating			Mating Ummat		ting		Mating		Ummating		
Sample#	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>		<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>		<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>
1	58.2	3.6	56.3	3.5		<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>	8.0		<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>	16.3
2	60.0	3.8	64.2	4.0		Lbs	Oz	<u>Lbs</u>	7.3		Lbs	<u>Oz</u>	<u>Lbs</u>	18.9
3	52.3	3.3	53.3	3.3		<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>	9.4		<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>	17.2
4	52.2	3.3	56.0	3.5		<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>	9.4		<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>	16.9
5	52.2	3.3	55.0	3.4	_	Lbs	<u>Oz</u>	Lbs	10.6		<u>Lbs</u>	<u>Oz</u>	Lbs	17.4



DATA continued

MATING/UNMATING:

QXS Series

Test Date: 5/31/2002 5/31/2002	5/31/2002
Operator: GL GL	GL
Temperature (C): 21 21	21
Humidity (RH): 45% 45%	45%
Equipment Code Number 59 59	59
Load Cell Code Number 60 60	60
Readout Code Number	
Contact Description	
Contact Used In: QSS/QTS QSS/QTS	QSS/QTS

	One Bank						Thre	e Bank			Five Bank			
	Mati	ing	Ummating		Ma		Mating Umr		Ummating		Mating		Ummating	
Sample#	<u>Oz</u>	Lbs	<u>Oz</u>	Lbs		<u>Oz</u>	Lbs	<u>Oz</u>	Lbs		<u>Oz</u>	Lbs	<u>Oz</u>	Lbs
1	57.8	3.6	57.8	3.6		210.6	13.2	187.4	11.7		319.8	20.0	255.5	16.0
2	54.1	3.4	48.3	3.0		197.4	12.3	182.1	11.4		301.8	18.9	243.5	15.2
3	60.6	3.8	62.7	3.9		199.8	12.5	178.7	11.2		306.1	19.1	201.4	12.6
4	53.8	3.4	57.0	3.6		179.8	11.2	157.9	9.9		339.2	21.2	264.3	16.5
5	51.8	3.2	56.5	3.5		213.4	13.3	182.6	11.4		315.5	19.7	207.4	13.0



DATA continued

MATING/UNMATING:

QXH Series

Test Date:	5/31/2002	5/31/2002		5/31/2002
Operator:	GL	GL		GL
Temperature (C):	25	25		25
Humidity (RH):	36%	36%		36%
Equipment Code Number	59	59		59
Load Cell Code Number	60	60		60
Readout Code Number				
Contact Description	,		, <u>-</u>	

Contact Used In: QSH/QTH QSH/QTH QSH/QTH

		One Bank					Thre	e Bank			Five Bank			
	Mati	ing	Ummat	Ummating		Mating		Ummating			Mat	ing	Ummat	ing
Sample#	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	Lbs	ı	<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>		<u>Oz</u>	<u>Lbs</u>	<u>Oz</u>	<u>Lbs</u>
1	71.8	4.5	57.1	3.6		198.6	12.4	206.1	12.9		408.8	25.6	382.9	23.9
2	72.0	4.5	63.4	4.0		208.2	13.0	186.1	11.6		409.0	25.6	374.6	23.4
3	70.4	4.4	66.9	4.2		206.2	12.9	213.3	13.3		407.2	25.5	347.0	21.7
4	71.8	4.5	64.0	4.0		232.6	14.5	175.5	11.0		395.0	24.7	355.4	22.2
5	69.6	4.4	74.9	4.7		193.6	12.1	169.4	10.6		434.6	27.2	396.2	24.8



EQUIPMENT AND CALIBRATION SCHEDULES

Equipment #: 59

Description: Dillon Quantrol TC2 Test Stand

Manufacturer: Dillon Quantrol

Model: TC2

Serial #: 02-1033-03

Accuracy: Speed Accuracy: +/- 5% of indicated speed; Displacement: +/- 5 micrometers.

... Last Cal: 03/21/02, Next Cal: 03/21/03

Equipment #: 60

Description: 2500 N Load Cell for Dillon Quantrol

Manufacturer: Dillon Quantrol

Model: icell

Serial #: 01-0132-01

Accuracy: .10% of capacity

... Last Cal: 3/21/02, Next Cal: 3/21/03