

JANUARY 22, 1991

TEST REPORT # 043

CONTACT RESISTANCE, NORMAL FORCE, AND
INSERTION / WITHDRAWAL FORCES

SULLINS SALES DEPARTMENT

APPROVED BY : NOP BOONSUE
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Sullins Electronics Corp.

801 E. Mission Rd.
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SCOPE

To perform contact resistance, normal force, and insertion / withdrawal force tests on the edge card connectors as manufactured by Sullins Electronics and submitted by the test sponsor, Sullins Electronics Sales Department.

TEST SAMPLES AND PREPARATION

1. The following samples were submitted by the manufacturer, Sullins Electronics, for evaluation by Sullins Test Laboratories:

<u>Quantity</u>	<u>Part Number</u>	<u>Alpha Codes</u>
2	EXM22DTKH	DPBA, DJSP

2. Unless otherwise indicated, all materials were certified by the manufacturer to be in accordance with the applicable product specification.
3. Applicable edge cards were obtained by Sullins Test Labs and prepared accordingly.
4. These edgeboards were manufactured in the form of standard .062" thick boards with an outer plating of gold on the contact pads.
5. The test samples and edge cards had wires soldered to the appropriate terminations or contact pads.
6. The first test consisted of having current run through the contact point and measuring the voltage drop.
7. The second test consisted of having the insertion and withdrawal forces tested.
8. The last test consists if having the normal force tested.



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SAMPLE # 1

INSERTION AND WITHDRAWAL TEST RESULTS

CONTACT ID#	FORCES WITH .062" BLADE		FORCES WITH .054" BLADE	
	INSERTION	WITHDRAWAL	INSERTION	WITHDRAWAL
3 - 4	4.5	2.0	2.5	1.5
31 - 32	4.7	3.0	2.5	1.6
33 - 34	4.8	3.0	2.5	1.7
59 - 60	5.0	3.0	2.6	1.7

STATIC GAP TEST RESULTS

CONTACT ID#	GAP BETWEEN CONTACTS IN INCHES
3 - 4	.048
31 - 32	.046
33 - 34	.046
59 - 60	.046

NORMAL FORCE TEST RESULTS

CONTACT ID#	NORMAL FORCE IN GRAMS
	.062" THICK PC-BOARD
54	218.7

SAMPLE # 2

INSERTION AND WITHDRAWAL TEST RESULTS

CONTACT ID#	FORCES WITH .062" BLADE		FORCES WITH .054" BLADE	
	INSERTION	WITHDRAWAL	INSERTION	WITHDRAWAL
3 - 4	6.0	4.0	3.0	2.0
31 - 32	6.0	4.5	3.2	2.2
33 - 34	6.0	4.5	3.2	2.2
59 - 60	6.0	4.5	3.2	2.2



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SAMPLE # 2 (CONTINUED)

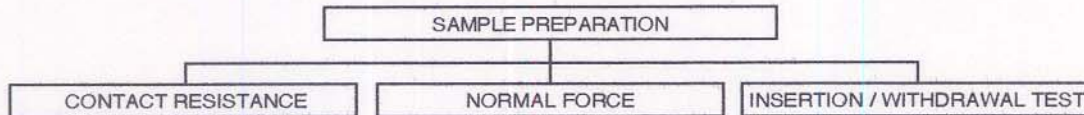
STATIC GAP TEST RESULTS

CONTACT ID#	GAP BETWEEN CONTACTS IN INCHES
3 - 4	.035
31 - 32	.033
33 - 34	.033
59 - 60	.034

NORMAL FORCE TEST RESULTS

CONTACT ID#	NORMAL FORCE IN GRAMS
	.062" THICK PC-BOARD
54	284.09

ETR # 024 TEST LAYOUT



EQUIPMENT LIST

<u>NAME</u>	<u>BRAND AND MODEL</u>
1. DC POWER SUPPLY	HEWLETT PACKARD MPB MODEL 6282 A
2. DIGITAL MULTIMETER	KEITHLY 177 MICROVOLT DMM
3. PUSH-PULL FORCE GAUGE	JOHN CHATILLON & SONS MODEL DPP



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