AUGUST 12, 1991

TEST REPORT # 046

CONTACT RESISTANCE, GOLD THICKNESS AND NORMAL FORCE AS A FUNCTION OF BOARD INSERTION

SULLINS SALES DEPARTMENT

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SCOPE

To perform contact resistance, gold thickness and normal force testing on the edge card connectors as manufactured by Sullins Electronics Corporation and submitted by the test sponsor, Sullins Electronics Sales Department.

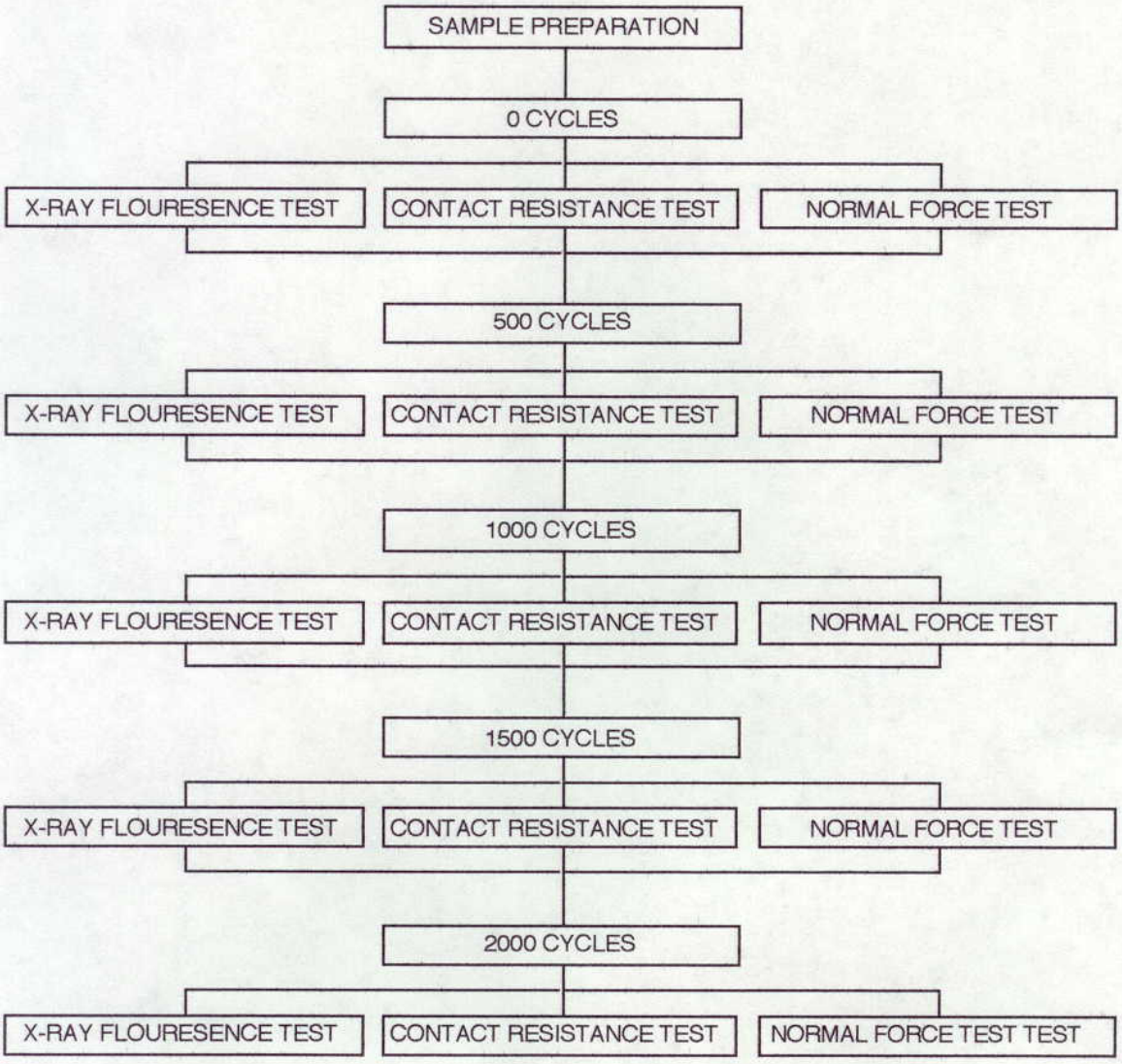
TEST SAMPLES AND PREPARATION

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

Quantity	Part Number
1	EXC25DCMH

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 test samples were cycled with a .062" steel test blade to the number of cycles desired and then tested.
7. The first test consisted of having current run through the contact point and measuring the voltage drop at the specified intervals.
8. The second test consisted of having the gold thickness tested at the specified intervals.
9. The third test consisted of having the normal force tested at the specified intervals.

ETR # 046 TEST LAYOUT



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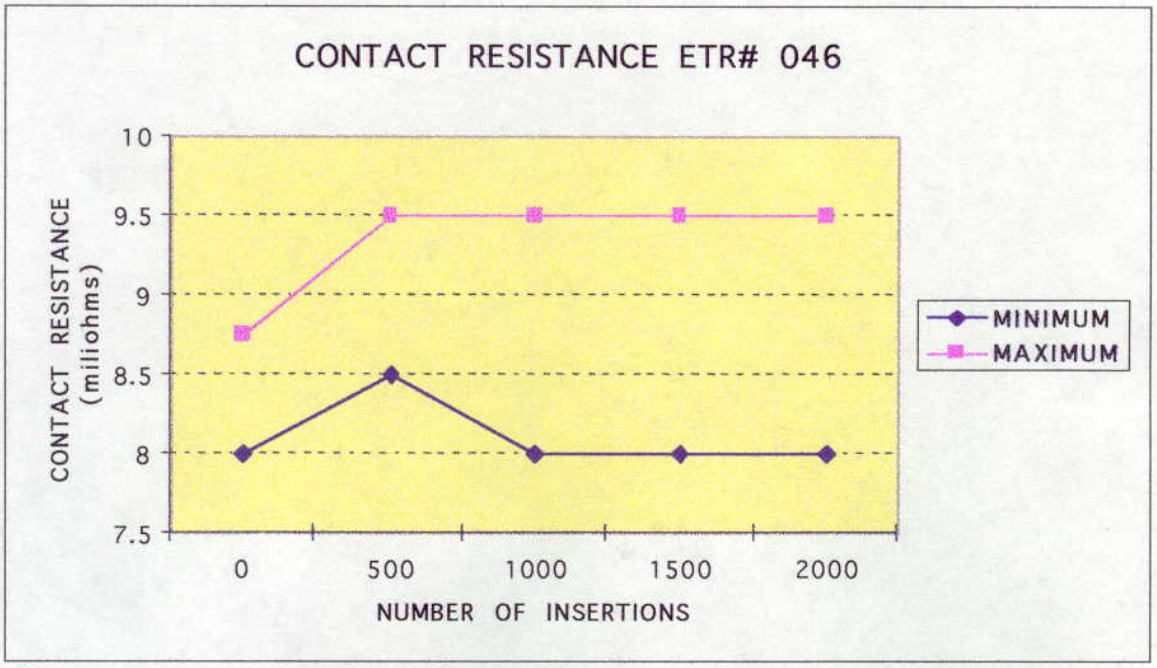
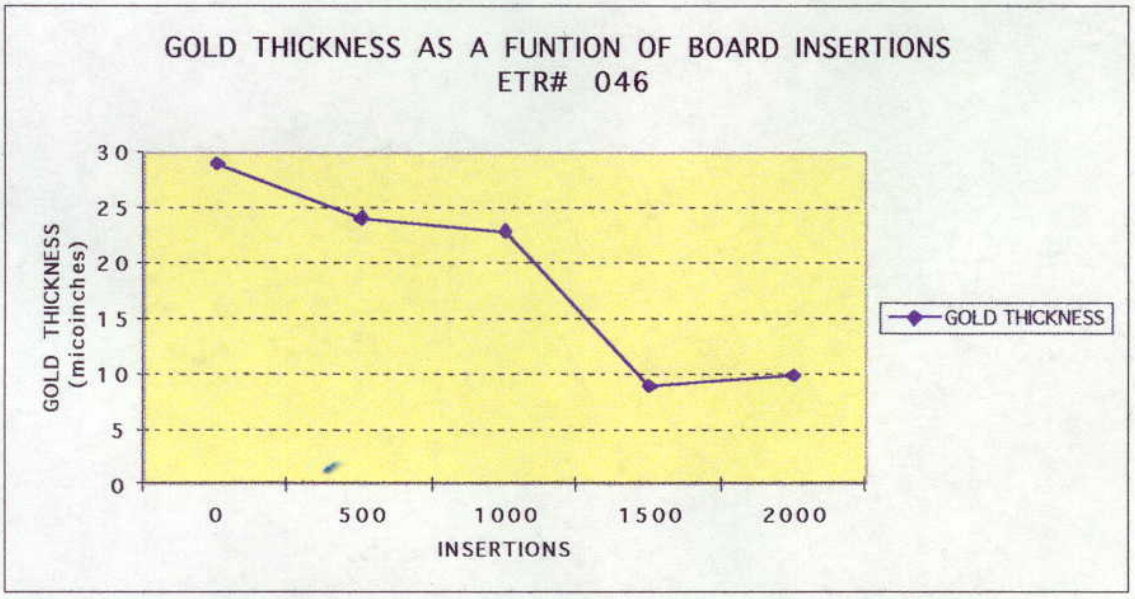


** CONTACT RESISTANCE MEASURED ON CONTACT POSITIONS 19, 21, AND 23 ON BOTH SIDES.



** GOLD THICKNESS MEASURED AT POINT OF WEAR
** GOLD THICKNESS MEASURED ON DIFFERENT CONTACTS

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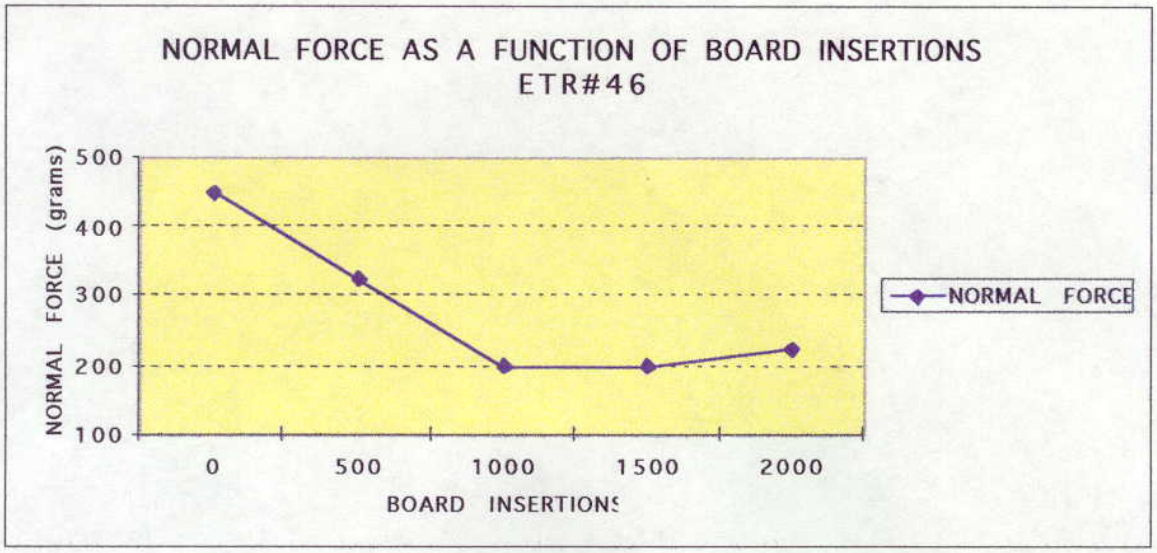

** NORMAL FORCE MEASURED ON POSITION 47.
** NORMAL FORCE MEASURED WITH THE DEFLECTION OF A .062" PRINTED CIRCUIT BOARD.

GOLD POROSITY

GOLD POROSITY = 164 PORES / cm2

EQUIPMENT LIST

	NAME	BRAND AND MODEL
1.	DC POWER SUPPLY	HEWLETT PACKARD MPB MODEL 6282 A
2.	DIGITAL MULTIMETER	KEITHLY 177 MICROVOLT DMM
3.	PCB AUTO INSERTION MACHINE	SULLINS ELECTRONICS CORP.
4.	PUSH-PULL FORCE GAUGE	JOHN CHATILLON & SONS MODEL DPP
5.	X-RAY FLUORESCENCE MACHINE	TWIN CITIES INT. TWINTEST XRF

6. GOLD POROSITY WAS DONE BY **TRACE LABORATORIES.**

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