

DECEMBER 8, 1993

TEST REPORT # 050

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

SULLINS SALES DEPARTMENT

APPROVED BY : NOP BOONSUE
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SULLINS ELECTRONICS CORPORATION



Sullins Electronics Corp.

801 E. Mission Rd.
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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.

| <u>Quantity</u> | <u>Part Number</u> |
|-----------------|--------------------|
| 5 | EXM28DRXH |

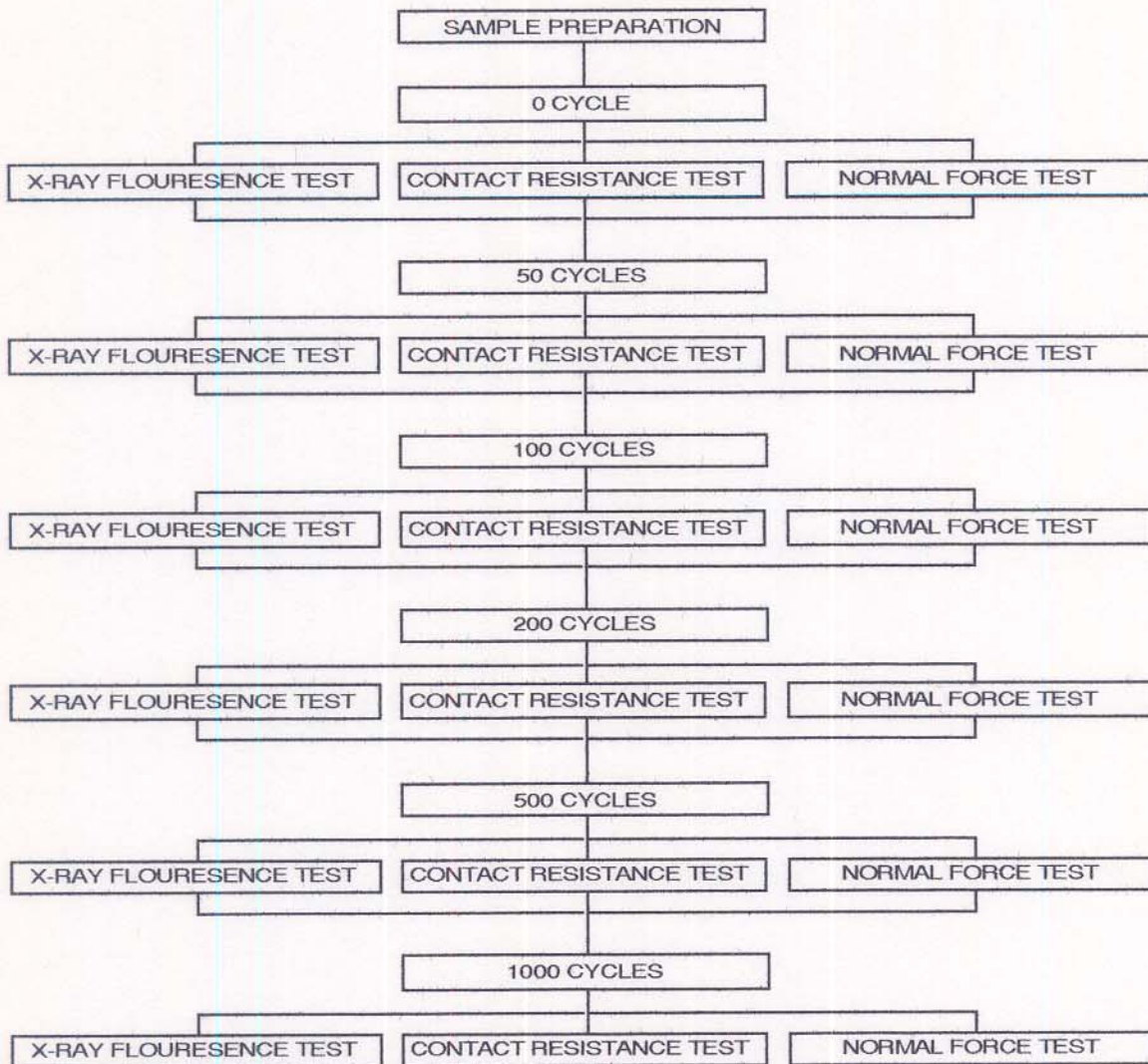
2. Unless otherwise indicated, all materials were certified by the manufacturer to be in accordance with the applicable product specification.
3. Applicable edge cards were obtained by Sullins Test Labs and prepared accordingly.
4. These edgeboards were manufactured in the form of standard .062" thick 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 last test consisted of having the normal force tested at the specified intervals.



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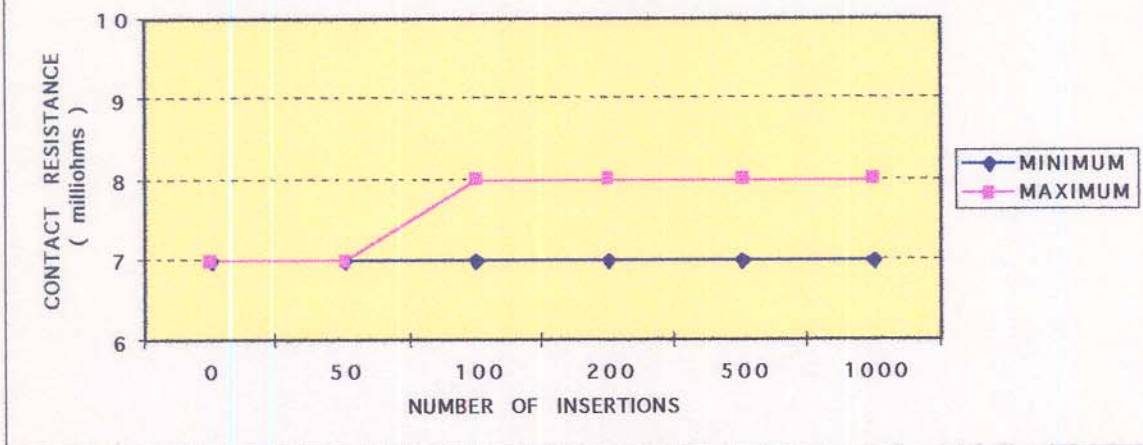
ETR # 050 TEST LAYOUT



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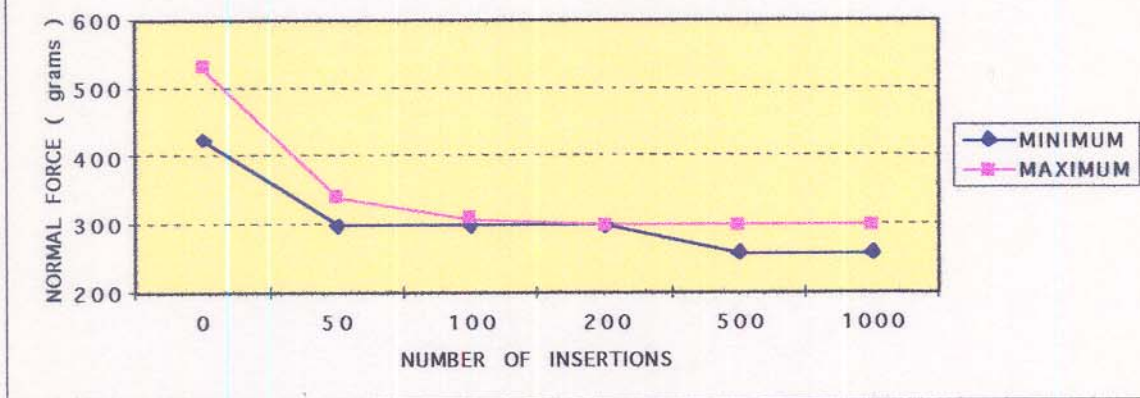
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CONTACT RESISTANCE AS A FUNCTION OF BOARD INSERTIONS



** CONTACT RESISTANCE MEASURED BETWEEN .062 INCH PC BOARD AND CONNECTOR TERMINATIONS.

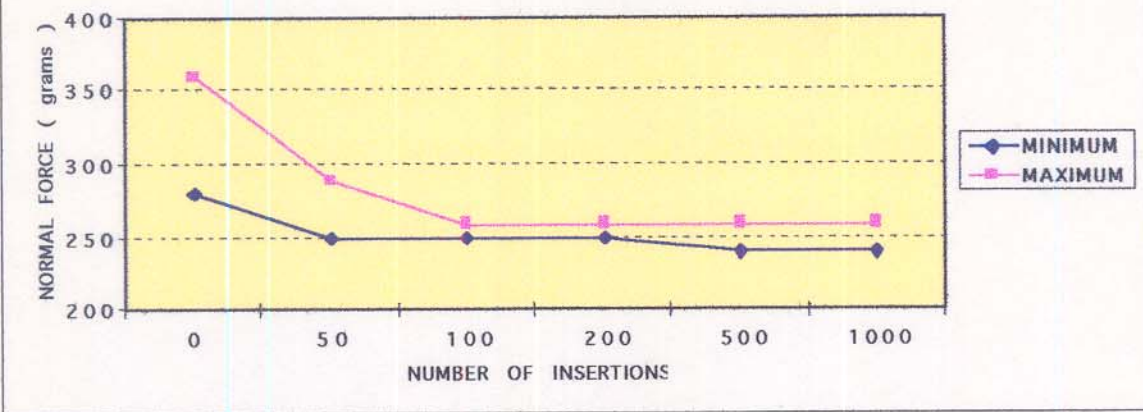
NORMAL FORCE AS A FUNCTION OF BOARD INSERTIONS
(SIMULATING .062 INCH BOARD)



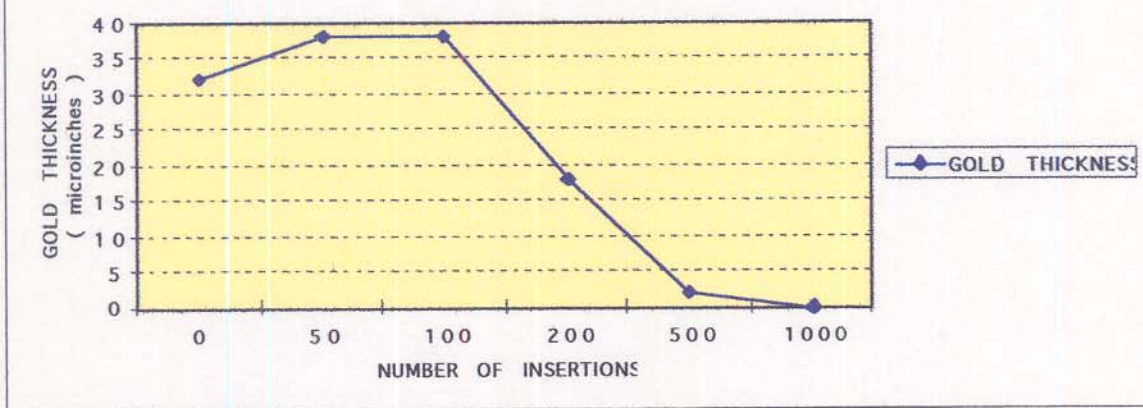
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NORMAL FORCE AS A FUNCTION OF BOARD INSERTION
 (SIMULATING .054 INCH BOARD)



GOLD THICKNESS AS A FUNCTION OF BOARD INSERTIONS



** MINIMUM GOLD THICKNESS READINGS.



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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. PCB AUTO INSERTION MACHINE | SULLINS ELECTRONICS CORP. |
| 4. PUSH-PULL FORCE GAUGE | JOHN CHATILLON & SONS MODEL DPP |
| 5. GOLD THICKNESS TEST WAS PERFORMED AT ELECTRONIC PLATING SERVICE. | |



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