S E R V I C E N O T E

SUPERSEDES: E3101A-10

E3101A, 4071A Semiconductor Parametric Tester

Serial Numbers: See below

All the SMUs show "another SMU has reached compliance".

Duplicate Service Notes:

E3101A Serial Numbers: JP10D00101 / JP10D00300, JP10D00303, JP10D00304

JP20D00301, JP20D00305 / JP20D00312, JP20D00315,

JP20D00316, JP20D00318

E3101K Serial Numbers: JP10E00101 / JP10E90103

To Be Performed By: Agilent-Qualified Personnel

Parts Required:

P/NDescriptionQuantityE3120-66533GNDU BOARD1

Situation:

When customer uses the 4071A tester to execute the measurements, the status of measurement results shows "another SMU has reached compliance". And changing the measuring SMU results in the same phenomenon.

Continued

DATE: May 1999

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:		
MODIFICATION RECOMMENDED		
ACTION CATEGORY:	☐ IMMEDIATELY ☐ ON SPECIFIED FAILURE ☐ AGREEABLE TIME	STANDARDS: LABOR 1.0 Hours
LOCATION CATEGORY:	☐ CUSTOMER INSTALLABLE ☐ ON-SITE ☐ SERVICE CENTER	SERVICE RETURN USED ☐ RETURN PARTS: SCRAP☐ SEE TEXT ☐ SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	AGILENT RESPONSIBLE UNTIL: May 2002
AUTHOR: ET	ENTITY: 3300	ADDITIONAL INFORMATION:

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When the diagnostic (diag4070) is executed, the following message is displayed in the result window during the SMU V/I test:

ERROR 2-23021 Status error occurred in SMU. port: x, status: 1

Our further investigation for this failure found a circuit design bug. Idle current of comparator IC, which has the function to detect the over current, is too large, and its temperature is over 100 degree Celsius. Then the long term heat stress may result in the malfunction of the over current detector.

Solution / Action:

When the symptom above is observed, the E3120-66503 GNDU BOARD must be replaced with the new part E3120-66533. Then the problem will be fixed.