MODIFICATION RECOMMENDED –
CORRECTS MANUFACTURING OR DESIGN DEFECTS

86130A-11

S E R V I C E N O T E

Supersedes:
NONE

86130A BitAlyzer Error Performance Analyzer

Serial Numbers: [0000A00000 / 9999Z99999]

Audio Circuit Modification if 86130A speaker stops working.

To Be Performed By: Agilent-Qualified Personnel

Parts Required:

P/N	Description	Qty.
0699-3958	2.87K Resistor, R26	1
8150-0275	30 Gauge Wire	4cm (or equivalent wire jumper)

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

MODIFICATION RECOMMENDED

ACTION CATEGORY:	[ ] IMMEDIATELY X ON SPECIFIED FAILURE [ ] AGREEABLE TIME	STANDARDS: LABOR: 1.0 Hours	
LOCATION CATEGORY:	[ ] CUSTOMER INSTALLABLE [ ] ON-SITE X SERVICE CENTER	SERVICE INVENTORY: [ ] RETURN [ ] SCRAP [ ] SEE TEXT	USED PARTS: [ ] RETURN [ ] SCRAP [ ] SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	AGILENT RESPONSIBLE UNTIL:	END OF SUPPORT
AUTHOR: RBS	PRODUCT LINE: 8F (DSA)		
ADDITIONAL INFORMATION: Factory Reference SoCo ECR11773			

Agilent Technologies

January 28, 2004

Situation:
Audio from the 86130A instrument speaker may stop unexpectedly (e.g. no beeping heard if audio is enabled and errors are received, see Step 3 below for test). In some cases, the audio may begin working again after cycling power to the instrument. This problem does not appear on all instruments.

The LM386 audio amp on the A5A3 CPU Distribution Assembly is prone to latching per the IC manufacturer. In addition, it was found that the circuit driving this amp could exasperate the problem due to small changes in load conditions as a result of part-part variability (hence, only some instruments experience this condition).

The problem does not appear on all instruments (very few customer complaints) so Agilent will implement MOD in the field "on specified failure only". Factory has been performing this MOD on all CSO (instrument returns) since March 2003 using MST procedure. The 86130A is now obsolete (the follow-on N4906A has incorporated this MOD on all instruments).

Solution/Action:
Modify the audio circuit by:
1. Removing the LM386 audio amp and resistor from the A5A3 CPU Distribution Assembly
2. Increase the gain on the amp on the A5A1 CPU Assembly.

Step 1 – Modify A5A3 CPU Distribution Assembly 86130-60025 – refer to Figure 1 below.
   a. Remove R2 10K Resistor.
   b. Remove LM386 IC.
   c. Add 30ga jumper as shown.
   d. Affix MOD4 label to assembly.

Step 2 – Modify A5A1 CPU (Radisys) Board 86130-60062 – refer to Figure 2 below.
   a. Remove R26 46.4k ohm resistor.
   b. Add R26 2.87 k resistor (PN 0699-3958).

Step 3 – Test the audio circuit. **No re-calibration is necessary.**
a. Power on the 86130A instrument.
b. On the pull-down menu at the top of the display, touch/click ED Setup-> Audio.
c. Touch/click the Audio On checkbox button to enable the audio. Ensure the Main Volume slide-bar is located to the right.
d. Disconnect any input to the ED Data In connector so that instrument is reporting errors (the red Errors indicator should be on).
e. The instrument speaker should begin to “beep”.

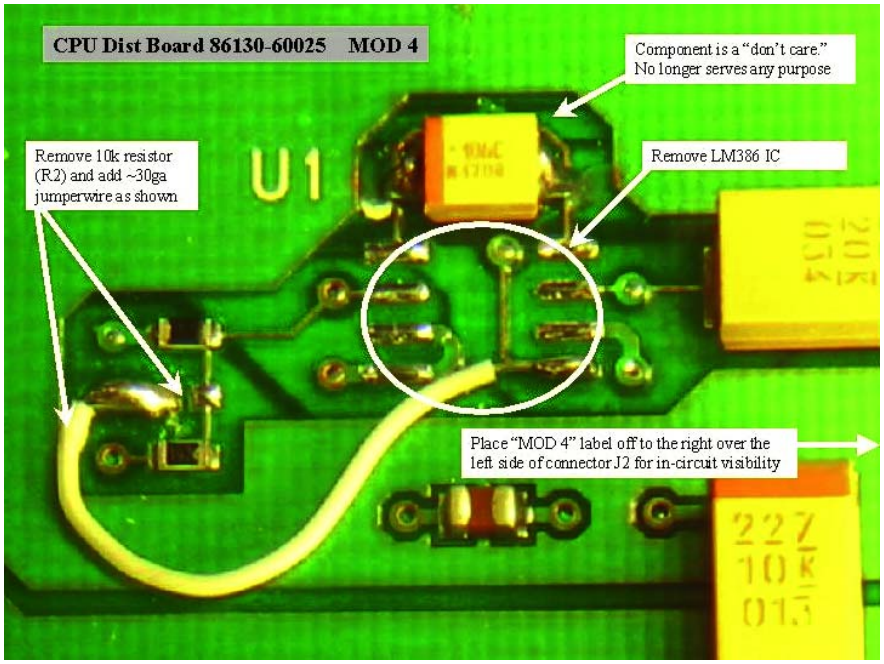

Figure 1 – Location of modifications on A5A3 CPU Distribution Board 86130-60025

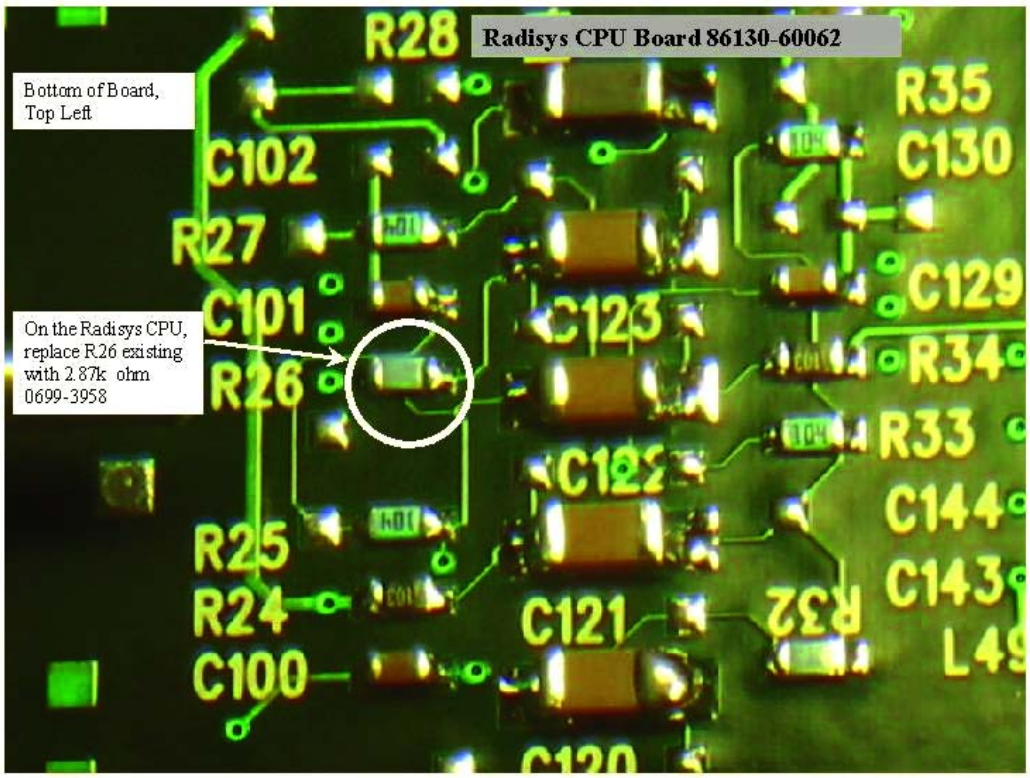

Figure 2 – Location of modification on A5A1 CPU (Radisys) Board 86130-60062