S E R V I C E N O T E

SUPERSEDES: None

E2411C Preprocessor Interface

Serial Numbers: 3319A00000 / 3319A00169

Correct PLL Lock Problem

To Be Performed By: Agilent-Qualified Personnel or Customers with adequate SMT and ESD repair facilities.

Duplicate Service Notes: None

Parts Required:

Part No.	Description
0180-4116	Capacitor, 22uf Electrolytic 20V (see text)

Situation:
Clock PLL Does Not Lock at Upper Specified Frequencies

Due to an error on the silk-screened polarity marking for C6 on the preprocessor board, C6 was loaded backwards. The leakage current caused by the reversed polarity on C6, lowers the upper operating frequency of the PLL. The upper frequency cutoff is inversely proportional to the length of time the reverse voltage was applied to the capacitor.

Continued

DATE: May 1994

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

MODIFICATION RECOMMENDED

ACTION CATEGORY:	☐ IMMEDIATELY ■ ON SPECIFIED FAILURE ☐ AGREEABLE TIME	STANDARDS: Labor	
LOCATION CATEGORY:	☐ CUSTOMER INSTALLABLE ☐ ON-SITE ■ SERVICE CENTER	SERVICE INVENTORY: ☐ RETURN ☐ SCRAP ■ SEE TEXT	USED PARTS: ☐ RETURN ■ SCRAP ☐ SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	AGILENT RESPONSIBLE UNTIL: May 1996	
AUTHOR: DPM	ENTITY: 0800	ADDITIONAL INFORMATION:	

Agilent Technologies

Solution/Action:
To correct this problem, the reversed capacitor must be replaced by a new capacitor and installed with the correct polarity. Just reversing the original capacitor is not an acceptable solution because of the permanent damage to the capacitor while it was operating with reversed voltage applied.

Two methods of repair have been established to allow customers a choice that better fits their needs:

Method 1: Return the preprocessor to Colorado Springs Division where a no-charge repair will be made.

Method 2: The customer performs the repair with the required part supplied at no charge by Colorado Springs Division.

Caution:
ESD procedures must be followed to prevent damage to the components on the preprocessor board.

Caution:
Damage to the preprocessor board can result without proper surface mount (SMT) soldering techniques and equipment. If you do not have both the experience and the proper SMT soldering equipment, you may send the preprocessor to Agilent Technologies, Colorado Springs Division for this repair.

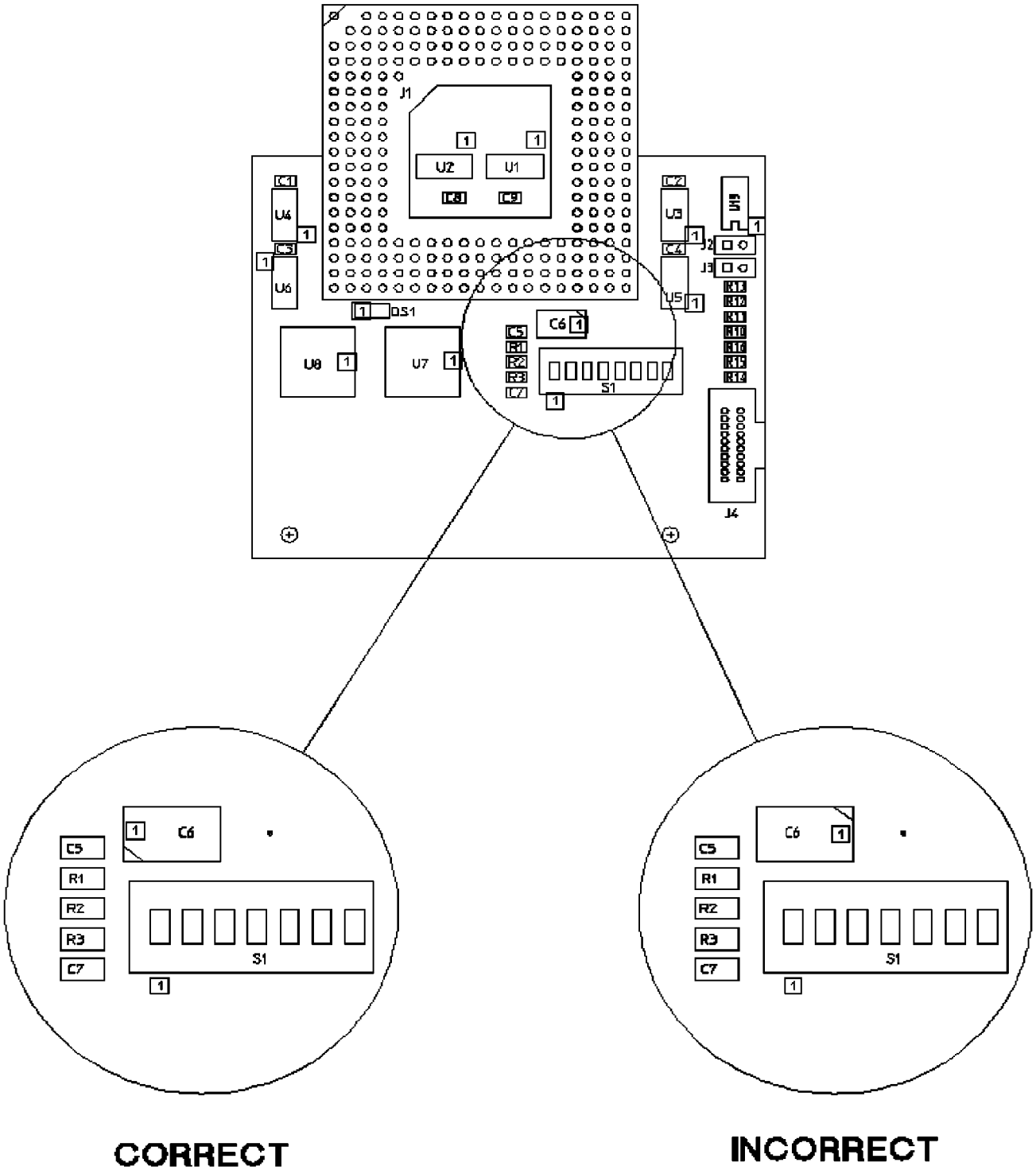
Method 1, Sending the preprocessor the Agilent Technologies:

1. Contact Logic Analyzer Technical Support Engineering at Colorado Springs Division (719) 590-2126 to notify them that your preprocessor is in need of this repair
2. Package your preprocessor in ESD protective packaging and adequate packing and send to:

   Agilent Technologies
   1900 Garden of Gods Road
   Colorado Springs, CO 80907
   Attention: Logic Analyzer Technical Support Engineering

Method 2, Repairing the preprocessor in the field:
To perform this repair, contact Logic Analyzer Technical Support Engineering at Colorado Springs Division (719) 590-2126 for the needed capacitor. The part number for the capacitor is 0180-4116 and will be sent at no charge. Once you receive the needed capacitor, perform the following steps:

1. Loosen the ribbon cable retainer screws.
2. Slide the clear plastic ESD cover from under the cable retainer screws.
3. Locate C6 (see figure 1)
4. Unsolder and discard this capacitor.
5. Install a new capacitor (Part Number 0180-4116) with the positive contact opposite the locator dot (see the “CORRECT” insert in figure 1).
6. Slide the loose end of the clear plastic ESD cover under the cable retainer and tighten the screws.


J1
U2
U1
C8
C9
C1
U4
C3
U6
DS1
U8
U7
C5
R1
R2
R3
C7
C6
S1
C2
U3
C4
U5
SW1
J2
J3
R13
R12
R11
R10
R16
R15
R14
J4
CORRECT
INCORRECT