S E R V I C E N O T E

SUPERSEDES: None

5342A Microwave Frequency Counter

New A13U1/U2 BI-Polar Devices (P/N 1820-2316) may require modifications to the A13 assembly

Serial Numbers: 1720A00101 / 9999A99999

To Be Performed By: Qualified Service technicians

Duplicate Service Notes: 5343A-33

Parts Required: Jumper Wire

Introduction

Due to changes in our supplying vendor processes, was informed that PMOS devices (P/N 1820-0634) would no longer be available. This required that the A13 assembly (P/N 05342-60013) be re-designed to use Bi-Polar devices (P/N 1820-2316), which would be available for a much longer time. The affected components were A13U1 and A13U2. To accomplish this change a new board layout (Revision "C") was introduced, allowing the use of either device until current stock of the PMOS devices was exhausted. This employed a system of jumpers and part changes to allow proper access to the -5Vdc and the -15Vdc supplies.

Continued

DATE: October 1995

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:		
INFORMATION ONLY		
AUTHOR:	ENTITY:	ADDITIONAL INFORMATION:
DC	0200	

Agilent Technologies

Situation

Since our stock of PMOS devices is now exhausted, any replacement of A13U1/U2 must now be done with the Bi-Polar parts. Your board Series and revision will dictate how you will need to modify the assembly to use the new replacement parts. ASSEMBLY IDENTIFICATION

Current A13 assemblies are Series Prefix 2301 with board Revision "C". The previous Series 1720 could be either Revision "B" or Revision "C". Use the following table and subsequent procedures to properly modify your particular assembly:

Table 1. Identifying the A13 Assembly.

Series #	Revision #	Use Procedure # Below
1720	"B"	I (recommended) or II (more difficult)
1720	"C"	II
2301	"C"	III

Procedures

I. Series 1720, Board Revision "B"

These assemblies were produced with the PMOS devices, with no provisions for using the new Bi-Polar devices. As a result, using the Bi-Polar devices will require extensive cutting of traces and patching jumpers in place. We therefore recommend that for this situation the entire assembly be replaced by ordering P/N 05342-60013.

If you are willing to undertake such extensive work, you will need to refer to procedure II below to gain insight into how to change your existing board traces so that your resulting circuit will be able to provide proper power for the Bi-Polar devices.II. Series 1720, Board Revision " C".

These assemblies were produced on the new layout using the PMOS devices until stock was exhausted. Jumpers were employed to properly configure this layout for the PMOS devices, but they can be easily modified to permit using the Bi-Polar devices.

Use Figure 1 and the steps below to effect the change.

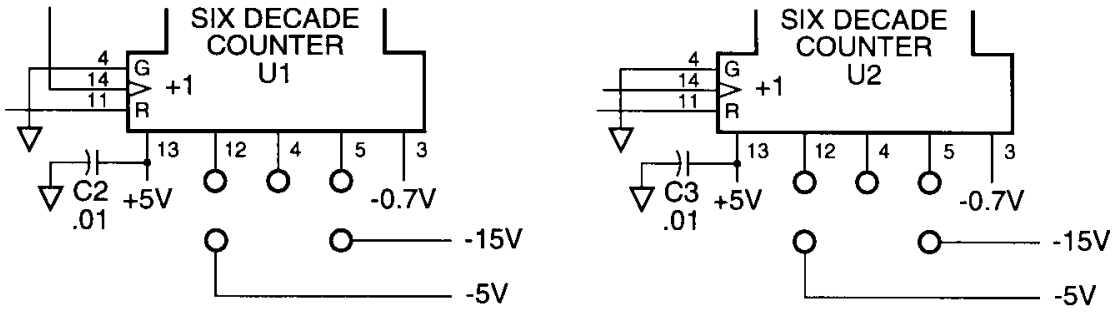

Figure 1. A13U1/U2 and Jumper Pads.

1. Remove BOTH U1 and U2 (P/N 1820-0634).
2. Remove the following jumper wires:
   a. Connecting "-15V" to Pin "5" on U1.
   b. Connecting "-15V" to Pin "5" on U2.
   c. Connecting "-5V" to Pin "12" on U1.
   d. Connecting "-5V" to Pin "12" on U2.
3. Install a jumper connecting Pins "4" and "5" on U1 only.
4. delete R4, CR1, C1 and C20.
5. Install a jumper in place of CR1 (just removed above).
6. Install the Bi-Polar devices (P/N 1820-2316) in to U1 and U2. Do not replace only one, they must both be replaced at the same time.

III. Series 2301, Board Revision "C".

These assemblies were produced with proper jumpers in place to permit usage of the Bi-Polar devices. There are no special changes to be made. Simply remove either U1 and/or U2 and replace with the new device(s).