A MODIFICATION ONLY - DOES NOT COMMUNICATE

53131A-04A

<u>SERVICE NOTE</u>

Supersedes: 54131A-04

53131A 225 MHz Counter

Serial Numbers: 0000A00000 / 9999A99999

US00000000 / US99999999 KR00000000 / KR9999999 MY00000000 / MY9999999 SG00000000 / SG9999999

Option Upgrades

Situation:

Some up-grades options for the 53131A Counter can be added by customers (experienced technicians). Other up-grade options must be installed by technical specialists at Agilent Service Centers.

Some 53131A Counters (especially older instruments) require replacement of major subassemblies to be compatible with some of these up-grade options. In some cases these additional up-grades become expensive enough that purchase of a new unit with the desired options becomes the best alternative to obtain the desired features.

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

INFORMATION ONLY

AUTHOR: EJH PRODUCT LINE: SP

ADDITIONAL INFORMATION:

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Solution/Action:

The following information is arranged in "Option number order" and will identify which options can be added, which options may not be present in the counter at the same time, and identifies the parts required to add an up-grade option.

Installation instructions for all option up-grades that can be installed by customers are contained in the "Agilent 53131A/132A/181A Assembly-Level Service Guide", part number 53131-90039.

Option 001 Medium Stability Timebase Assembly (Customer installable)

Special Requirements: To install this option requires that the 53131A have a firmware revision 3402 or greater (instructions given at the end of this document to determine the firmware revision). Only one timebase option can be added to a 53131A (either Option 001, or Option 010, or Option 012).

Parts Required:

P/N	Description	Qty.
53132-60016	A6 Timebase Support Board	1
1813-0931	Oven Oscillator	1
0515-0430C	TORX 10 Screws	3

Option 010 High Stability Timebase Assembly (Customer installable)

Special Requirements: To install this option requires that the 53131A have a firmware revision 3402 or greater (instructions given at the end of this document to determine the firmware revision). Only one timebase option can be added to a 53131A (either Option 001, or Option 010, or Option 012).

Parts Required:

P/N	Description	Qty
53132-60016	A6 Timebase Support Board	1
10811-60160	Oven Oscillator	1
0515-0430C	TORX 10 Screws (H2)	3
2360-0331	Pozidriv Screws (H7)	2

Option 012 Ultra-High Stability Timebase Assembly (Customer installable)

Special Requirements: To install this option requires that the 53131A have a firmware revision 3402 or greater (instructions given at the end of this document to determine the firmware revision). Only one timebase option can be added to a 53131A (either Option 001, or Option 010, or Option 012).

Parts Required:

P/N	Description	Qty.
53132-60016	A6 Timebase Support Board	1
10811-60260	Oven Oscillator	1
0515-0430	TORX 10 Screws (H2)	3
2360-0331	Pozidriv Screws (H7)	2

Option 030 3.0 GHz Channel Assembly (Parts ordered and installed only by Agilent Service Center)

Special Requirements: The 53131A can only have one of the following Options: Option 030, Option 050, Option 124.

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Parts Required:

P/N Description Qty. 53131-67001 Retrofit Kit 3.0 GHz

Note: Instruments with serial numbers greater than 3416AXXXXX or starting with US, KR, MY, or SG only require the parts listed above.

Additional Parts required for Serial Number 3416AXXXXX and below

53131-80032	Firmware	1
53131-80033	Firmware	1
53131-80034	Firmware	1
53131-80035	Firmware	1

For units with Option 002:

53131-00010 Chassis 1

For units NOT containing Option 002:

53131-00001 Chassis 1

Option 050 5.0 GHz Channel Assembly (Parts ordered and installed only by Agilent Service Center)

Special Requirements: The 53131A can only have one of the following Options: Option 030, Option 050, Option 124. This option cannot be installed or combined with Option 002 DC Power Input Assembly.

Parts Required:

P/N Description Qty. 53131-67002 Retrofit Kit 5.0 GHz

Note: Instruments with serial numbers greater than 3710AXXXXX or starting with US, KR, MY, or SG only require the parts listed above.

Additional Parts required for Serial Number 3710AXXXXX and below 53131-60004 PC Assembly Motherboard 1

Additional Parts required for Serial Number 3416AXXXXX and below 53131-00001 Chassis 1

Option 060 Rear Terminals -- (Customer Installable)

Note: Option 060 for the 53131A connects front and rear terminals in parallel for inputs 1 and 2. However, the optional Channel 3 input (Option 030) can be configured as rear terminals only or front terminals only. The optional Channel 3 input (Option 050 or 124) can be front terminal only.

Special Requirements: This option cannot be installed or combined with Option 002 DC Power Input Assembly.

Parts Required:

P/N	Description	Qty.
8120-6150	Coaxial cable assembly (W2)	2
2190-0068	BNC washer (H6)	2
2940-0256	BNC nut (H3)	2

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Option 124 12.4 GHz Channel Assembly (Parts ordered and installed only by Agilent Service Center)

Special Requirements: The 53131A can only have one of the following Options: Option 030, Option 050, Option 124. This option cannot be installed or combined with Option 002 DC Power Input Assembly.

Parts Required:

P/N Description Qty. 53131A-67003 Retrofit Kit 12.4 GHz

Note: Instruments with serial numbers greater than 3710AXXXXX or starting with US, KR, MY, or SG only require the parts listed above.

Additional Parts required for Serial Number 3710AXXXXX and below 53131-60004 PC Assembly Motherboard 1

Additional Parts required for Serial Number 3416AXXXXX and below 53131-00001 Chassis 1

Instructions for Determining the 53131A Firmware Revision Code:

Start with the 53131A connected to the line and the 53131A Power Switch set to standby (STBY). Press and hold down the "UTILITY" button. Then set the Power Switch to "ON". The "Firmware Revision Number" will be displayed until the "UTILITY" button is released.