

Keysight 85320A/B H20 Mixer Modules 0.1 to 3 GHz

Use this modification with manual part number
85320-90001

NOTICE: This document contains references to Agilent Technologies. Agilent's former Test and Measurement business has become Keysight Technologies. For more information, go to www.keysight.com.



Notices

© Keysight Technologies 1996 –2015

No part of this manual may be reproduced in any form or by any means (including electronic storage and retrieval or translation into a foreign language) without prior agreement and written consent from Keysight Technologies as governed by United States and international copyright laws.

Manual Part Number

85320-90032

Edition

February 2015

Supersedes: April 2014

Keysight Technologies
5301 Stevens Creek Blvd
Santa Clara, CA 95051

Warranty

The material contained in this document is provided “as is,” and is subject to being changed, without notice, in future editions. Further, to the maximum extent permitted by applicable law, Keysight disclaims all warranties, either express or implied, with regard to this manual and any information contained herein, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. Keysight shall not be liable for errors or for incidental or consequential damages in connection with the furnishing, use, or performance of this document or of any information contained herein. Should Keysight and the user have a separate written agreement with warranty terms covering the material in this document that conflict with these terms, the warranty terms in the separate agreement shall control.

Technology Licenses

The hardware and/or software described in this document are furnished under a license and may be used or copied only in accordance with the terms of such license.

Restricted Rights Legend

If software is for use in the performance of a U.S. Government prime contract or sub-contract, Software is delivered and

licensed as “Commercial computer software” as defined in DFAR 252.227-7014 (June 1995), or as a “commercial item” as defined in FAR 2.101(a) or as “Restricted computer software” as defined in FAR 52.227-19 (June 1987) or any equivalent agency regulation or contract clause. Use, duplication or disclosure of Software is subject to Keysight Technologies’ standard commercial license terms, and non-DOD Departments and Agencies of the U.S. Government will receive no greater than Restricted Rights as defined in FAR 52.227-19(c)(1-2) (June 1987). U.S. Government users will receive no greater than Limited Rights as defined in FAR 52.227-14 (June 1987) or DFAR 252.227-7015 (b)(2) (November 1995), as applicable in any technical data.

Safety Notices

CAUTION

A **CAUTION** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a **CAUTION** notice until the indicated conditions are fully understood and met.

WARNING

A **WARNING** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a **WARNING** notice until the indicated conditions are fully understood and met.

85320A/B H20 Mixer Modules

Description

This manual modification describes the differences in the 85320A H20 and 85320B H20 compared to the standard 85320A and 85320B.

The 85320A H20 and the 85320B H20 are identical in function to the standard 85320A and 85320B except that the frequency range of operation is 0.1 to 3.0 GHz instead of 2.0 to 26.5 GHz. Fundamental mixing is the only mode of operation.

The 85320A H20 test mixer and the 85320B H20 reference mixer are designed for use with the 85309B Option 400 or 401 or 402.

Accessories

Item	Part Number
85320A/B H20 Mixer Modules Operating and Service Manual Modification, qty 1	85320-90032
RF adapter, Type-N (m)/(m), qty 1 for each module	1250-1475
Mounting bolts, (4) for each module	2940-0287

Specifications

Operating Frequency Range

0.1 to 3.0 GHz (fundamental mixing mode ONLY)

Maximum Input Levels

Maximum RF level at RF and LO inputs (damage level): +20 dBm

Table 1-1 Minimum LO Input Levels Under Normal Operations

LO Frequency	Minimum Power	Typical Power	Maximum Power
0.1 – 3 GHz	+8 dBm	+10 dBm	+16 dBm

Table 1-2 Conversion Loss (LO at +10 dBm)

LO Frequency	LO Harmonic	Typical Loss	Maximum Loss
0.1 – 3 GHz	1	-12 dB	-16 dB

Connector Types

Type-N female (all ports)

Weight (approximately)

85320A H20: 0.70 kg (1.52 lb.)

85320B H20: 1.00 kg (2.2 lb.)

Dimensions (excluding connectors):

85320A H20: width: 97 mm (3.8 in)

length: 122 mm (4.8 in)

height: 34 mm (1.3 in)

85320B H20: width: 97 mm (3.8 in)

length: 186 mm (7.3 in)

height: 31 mm (1.2 in)

Rebuilt/Exchange Parts

The Rebuilt/Exchange Parts program does not apply to the 85320A/B H20. Mechanical mounting information can be found on the last page of this document.

Performance Notes

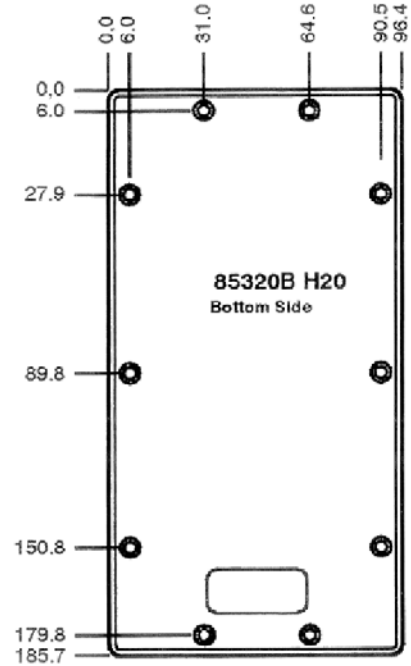
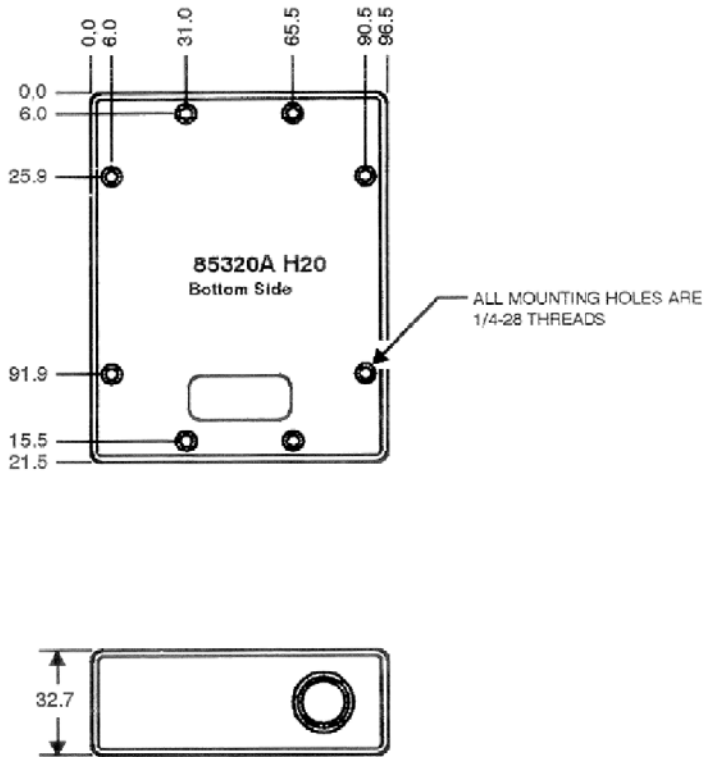
85320A/B H20 Mixers and the 85309B

The 85320A/B H20 mixer modules were designed to be used with the 85309B Option 400 or 401 or 402. This combination of products will provide the full 85320A/B H20 frequency range of operation.

The frequency range of operation consists of two bands: low band operating from 0.1 to 1.0 GHz and high band operating from 0.3 to 3.0 GHz.

If the 85320A/B H20 mixer modules are used with the 85309B Standard or Option 001 or 002, the frequency range of operation is limited to 0.3 to 3 GHz.

Mechanical Mounting Information



Notes:

1. All Dimensions are Metric (mm).
2. Type-N Female Connectors on all Four Ports.



85320_032_001

Contacting Keysight

Assistance with test and measurement needs and information on finding a local Keysight office are available on the Web at:

www.keysight.com/find/assist

NOTE

In any correspondence or telephone conversation, refer to the Keysight product by its model number and full serial number. With this information, the Keysight representative can determine whether your product is still within its warranty period.

This information is subject to change without notice.
© Keysight Technologies 1996 – 2015
February 2015



85320-90032
www.keysight.com