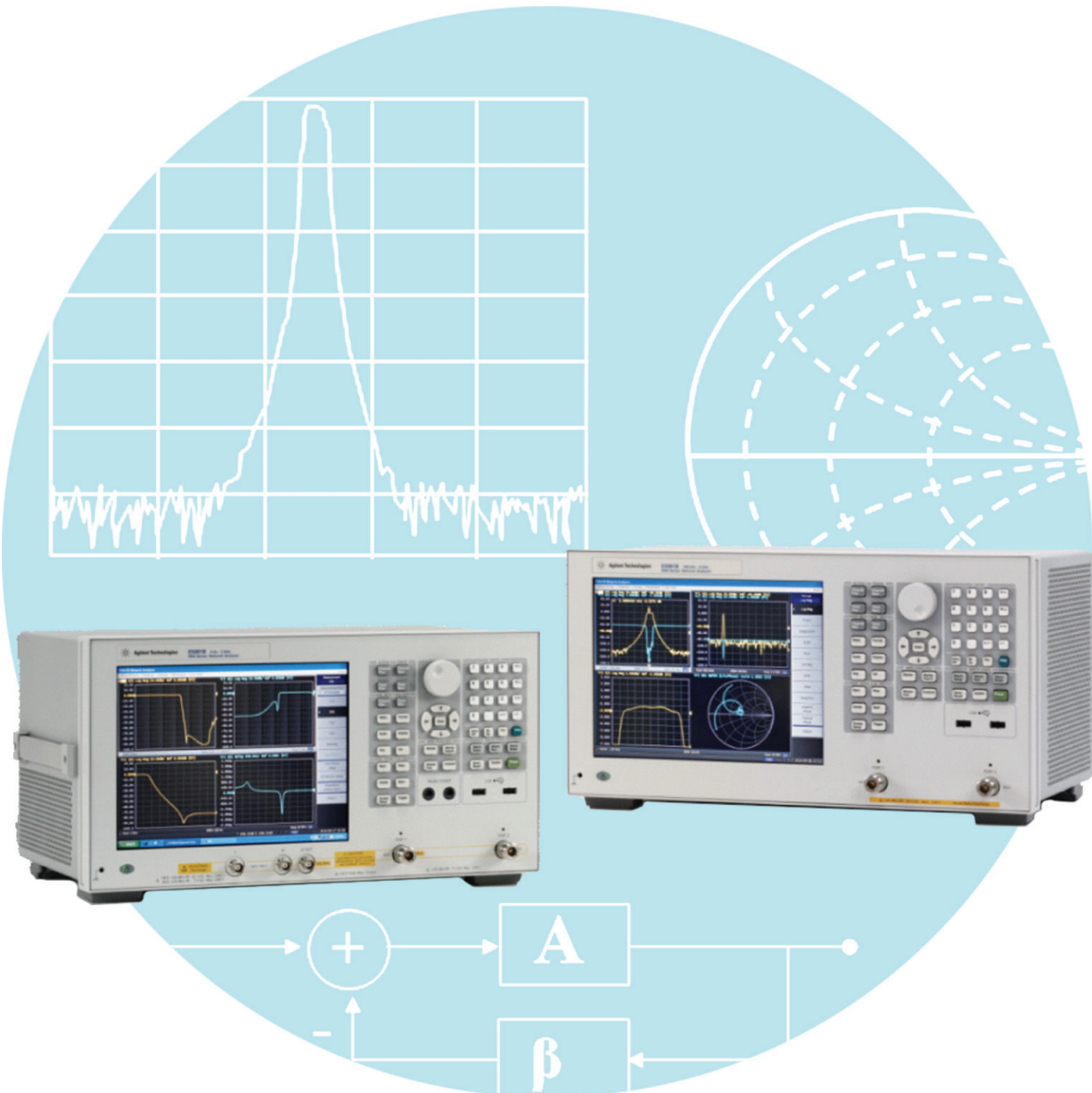


# Agilent E5061B Network Analyzer

Configuration Guide



**Agilent Technologies**

# Ordering guide

The following steps will guide you through configuring your E5061B.

Standard furnished item <sup>1</sup>	
Description	Additional information
Installation guide	Contains the information necessary to start up with the E5061B.
CD ROM IO libraries	
Power cable	
Certificate of calibration	

Step 1. Choose test set option (Must choose one of the nine test set options.)	
Option No.	Description
50 $\Omega$ RF NA options	
E5061B-115	Transmission/Reflection test set, 100 kHz to 1.5 GHz, 50 $\Omega$ system impedance
E5061B-215	S-parameter test set, 100 kHz to 1.5 GHz, 50 $\Omega$ system impedance
E5061B-135	Transmission/Reflection test set, 100 kHz to 3 GHz, 50 $\Omega$ system impedance
E5061B-235	S-parameter test set, 100 kHz to 3GHz, 50 $\Omega$ system impedance
75 $\Omega$ RF NA options	
E5061B-117	Transmission/Reflection test set, 100 kHz to 1.5 GHz, 75 $\Omega$ system impedance
E5061B-217	S-parameter test set, 100 kHz to 1.5 GHz, 75 $\Omega$ system impedance
E5061B-137	Transmission/Reflection test set, 100 kHz to 3 GHz, 75 $\Omega$ system impedance
E5061B-237	S-parameter test set, 100 kHz to 3GHz, 75 $\Omega$ system impedance
LF-RF NA option	
E5061B-3L5	LF-RF network analyzer with DC bias source, 5 Hz to 3 GHz

Step 2. Choose impedance analysis option (for E5061B-3L5 LF-RF network analyzer. If not required, go to step 3.)	
Option No.	Description
Software option	
E5061B-005 <sup>2,3</sup>	Impedance analysis for E5061B-3L5 LF-RF network analyzer
Accessory	
E5061B-720 <sup>3,4</sup>	Add 50 $\Omega$ resistor set

1. Keyboard and mouse are not furnished as standard. Refer to "Step 6. accessory option" for the selection of these items.
2. This option is not applicable for the E5061B RF NA options 1x5/2x5/1x7/2x7.
3. Refer to "Software upgrade" section for retrofit information on the above option.
4. For calibration at test fixtures. Required for the gain-phase series-thru method.

### Step 3. Choose hardware option (If not required, go to step 4)

Option No.	Description
E5061B-1E5 <sup>1</sup>	E5061B-019

### Step 4. Choose hard disk drive option <sup>2</sup>

Option No.	Description
E5061B-020	Standard hard disk drive

### Step 5. Choose software option (If not required, go to step 6)

Option No.	Description
E5061B-010 <sup>3</sup>	Time domain/fault location analysis

### Step 6. Choose accessory option (If not required, go to step 7)

Option No.	Description
E5061B-810	Add keyboard
E5061B-820	Add mouse
E5061B-1CM	Rack mount Kit
E5061B-1CN	Front Handle Kit
E5061B-1CP	Rack mount and front handle kit

### Step 7. Choose calibration option

Option No.	Description
E5061B-1A7	ISO 17025 compliant calibration
E5061B-A6J	ANSI Z540 compliant calibration

1. Refer to "Hardware upgrade" section for retrofit information on the above options.
2. Option 020 is the only hard disk option for the E5061B. Must choose this option when ordering the E5061B.
3. Refer to "Software upgrade" section for retrofit information on the above option.

## Test accessories and calibration kits

Test accessories and calibration kits that can be used with the E5061B are listed in this section. A complete line of test accessories and calibration kits can be found at the Agilent RF and Microwave Test Accessories Web site: [www.agilent.com/find/accessories](http://www.agilent.com/find/accessories)

### Test accessories

Test accessories such as test port cable are necessary for a complete measurement system using the E5061B. Order test accessories in accordance with the desired measurement system.

### Calibration kits

Calibration is an accuracy enhancement procedure that effectively reduces the system errors that cause uncertainty in network measurement. Calibration kit is necessary to perform the calibration.

- **Mechanical calibration kits** include standards, such as opens, shorts and loads, which are measured by the network analyzer. Choose a calibration kit for each connector type to be used.
- **Electronic calibration (ECal) modules**<sup>1</sup> replace mechanical calibration standards with one solid-state calibration module that is controlled by the network analyzer via USB. ECal modules provide many different impedances to the test ports which enables a full two-port calibration to be performed quickly with a single connection. This technique reduces operator errors and connector wear and abrasion.



*Mechanical calibration kits*



*Electronic calibration (ECal) modules*

1. ECal modules don't cover the whole frequency range of the E5061B. Check whether the frequency range of each ECal module meets your measurement needs.

## Test accessories (for 50 $\Omega$ system)

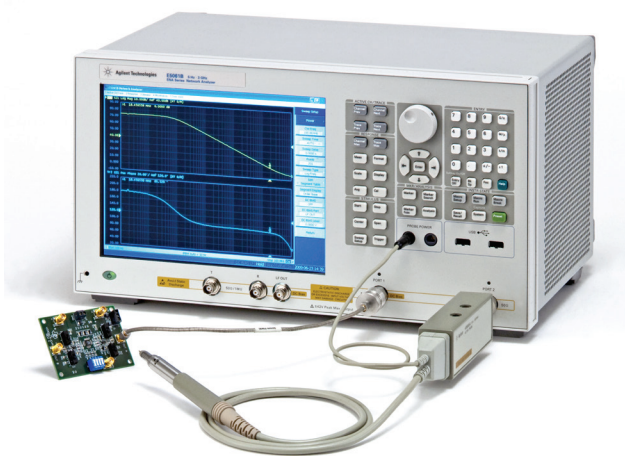
Model No.	Description
<b>Test Port Cable</b>	
N6314A	50 $\Omega$ type-N (m) to type-N (m) cable, DC to 12.4 GHz, 61 cm (24 in)
N6315A	50 $\Omega$ type-N (m) to type-N (f) cable, DC to 12.4 GHz, 61 cm (24 in)
11500E	3.5 mm (m) to 3.5 mm (m) cable, 61 cm (24 in)
11500F	3.5 mm (m) to 3.5 mm (m) cable, 150 cm (24 in)
11857D	50 $\Omega$ 7 mm to 7 mm cable, 300 kHz to 6 GHz, 61 cm (24 in)
8120-1838	50 $\Omega$ BNC (m) to BNC (m) cable, 30 cm (12 in)
8120-1839	50 $\Omega$ BNC (m) to BNC (m) cable, 61 cm (24 in)
<b>Adapter</b>	
1250-0780	50 $\Omega$ type-N (m) to 50 $\Omega$ BNC (f) adapter
1250-1200	50 $\Omega$ BNC (f) to SMA (m) adapter
1250-2015	50 $\Omega$ BNC (m) to SMA (f) adapter
<b>Accessory Kit</b>	
11853A	50 $\Omega$ type-N accessory kit. Includes; - Type-N (f) to type-N (f) adapter (2 qty.) - Type-N (m) to type-N (m) adapter (2 qty.) - Type-N (f) short - Type-N (m) short
11854A	50 $\Omega$ BNC accessory kit. Includes; - BNC (m) to Type-N (m) adapter (2 qty.) - BNC (f) to Type-N (f) adapter (2 qty.) - BNC (f) to Type-N (m) adapter (2 qty.) - BNC (m) to Type-N (f) adapter (2 qty.) - BNC (m) short
<b>Adapter Kit</b>	
11878A	50 $\Omega$ type-N to 3.5 mm adapter kit. Includes; - 3.5 mm (m) to type-N (m) adapter - 3.5 mm (f) to type-N (f) adapter - 3.5 mm (f) to type-N (m) adapter - 3.5 mm (m) to type-N (f) adapter
<b>Power Splitter<sup>1</sup></b>	
11667L	BNC (f) connectors, DC to 2 GHz
<b>DC Block</b>	
N9398C	3.5 mm (m) and 3.5 mm (f) connectors, 50 kHz to 26.5 GHz
N9399C	3.5 mm (m) and 3.5 mm (f) connectors, 700 kHz to 26.5 GHz



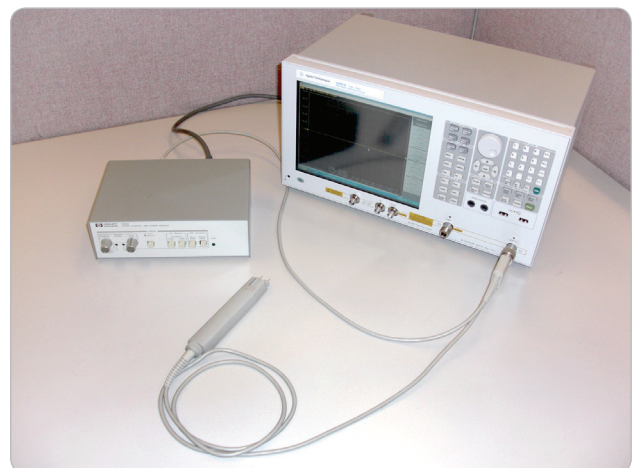
1. For transmission measurement with the gain-phase test port of the E5061B-3L5. Required for milliohm impedance measurements in the low frequency range.

## Test accessories (for 50 $\Omega$ devices, continued)

Model No.	Description
<b>Active Probe</b>	
41800A	5 Hz to 500 MHz active probe, 100 k $\Omega$ (probe alone) / 1 M $\Omega$ (with 10:1 or 100:1 divider). Includes; <ul style="list-style-type: none"> <li>- Probe to BNC adapter</li> <li>- Hook tip adapter</li> <li>- Slip-on tip adapter</li> <li>- 10:1 and 100:1 divider</li> </ul>
41800A-001	Adds a cable to connect the probe with an external power supply. This option is not necessary for the E5061B-3L5 since it is equipped with the probe power.
41800A-UK6	Commercial cal certificate with test data
85024A	300 kHz to 3 GHz active probe. Includes; <ul style="list-style-type: none"> <li>- Probe tip to type-N Adapter</li> <li>- 10:1 divider</li> <li>- Hook tip adapter</li> <li>- Slip-on tip adapter</li> <li>- Leads</li> </ul>
<b>Differential Active Probe</b>	
1141A <sup>1</sup>	DC to 200 MHz differential active probe. The 1142A is required. Includes; <ul style="list-style-type: none"> <li>- 10x and 100x attenuator adapter</li> <li>- AC coupling adapter</li> <li>- Two-inch extension leads</li> <li>- Mini-grabbers (2 qty.)</li> <li>- Five-inch ground lead</li> <li>- Shielded signal lead</li> <li>- Test board</li> <li>- Flat-blade alignment tool</li> <li>- Circuit connection post</li> </ul>
<b>Probe Control and Power Module</b>	
1142A	Probe control and power module for the 1141A Differential Active Probe.



41800A and E5061B

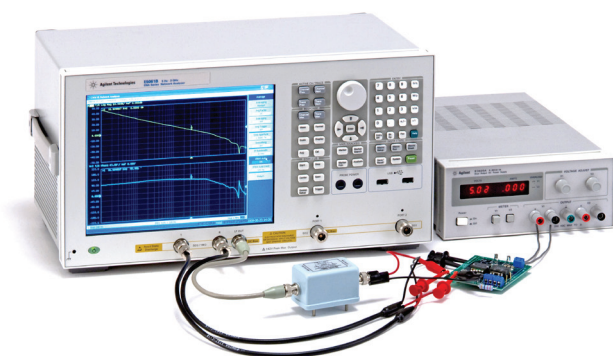


1141A, 1142A, and E5061B

1. The 1142A Probe Control and Power Module is required.

## Non-Agilent test accessories (for 50 $\Omega$ system)

Model No.	Description
<b>Wideband Transformer</b>	
North Hills Signal Processing 0017CC	10 Hz to 5 MHz, 50 $\Omega$ BNC (f) input – 50 $\Omega$ BNC (f) output wideband transformer. Suitable for the use as an injection transformer in the measurement such as loop-gain measurement of a DC-DC converter.
<b>50 <math>\Omega</math> feed through</b>	
Pasternack Enterprises PE6008-50	DC to 1 GHz, 50 $\Omega$ BNC (m) – BNC (f) feed through.
<b>DC Block</b>	
Mini-Circuits BLK-89	100 kHz to 8 GHz, 50 $\Omega$ SMA (m) – SMA (f) DC blocking capacitor.



*North Hills Signal Processing 0017CC and Agilent E5061B*



*North Hills Signal Processing 0017CC*

North Hills Signal Processing web page: <http://www.northhills-sp.com/index.html>

Mini-Circuits web: <http://www.minicircuits.com/index.html>

Pasternack Enterprises web page: <http://www.pasternack.com/>

## Calibration kits (for 50 $\Omega$ system)

Model No.	Description
Type-N	
Mechanical calibration kits	
85032E	50 $\Omega$ economy calibration kit, DC to 6 GHz. Includes; - Type-N (m) fixed load - Type-N (m) combined open/short
85032F	50 $\Omega$ standard calibration kit, DC to 9 GHz. Includes; - Type-N (m) fixed load - Type-N (f) fixed load - Type-N (m) Open - Type-N (f) Open - Type-N (m) Short - Type-N (f) Short
85032F-100	Adds 50 $\Omega$ type-N (f) to type-N (f) adapter
85032F-200	Adds 50 $\Omega$ type-N (m) to type-N (m) adapter
85032F-300	Adds 50 $\Omega$ type-N (m) to type-N (f) adapter
85032F-500	Adds; - 50 $\Omega$ type-N (m) to 7 mm adapter (2 qty.) - 50 $\Omega$ type-N (f) to 7 mm adapter (2 qty.)
Electronic calibration kits	
85092C <sup>1</sup>	RF ECal module 2-port (50 $\Omega$ type-N), 300 kHz to 9 GHz. The sexes of the connectors depend on the option.
85092C-M0F <sup>2</sup>	Type-N (f) to Type-N (m) RF ECal module
85092C-00M <sup>2</sup>	Type-N (m) to Type-N (m) RF ECal module
85092C-00F <sup>2</sup>	Type-N (f) to Type-N (f) RF ECal module
85092C-00A	Adds; - Type-N (f) to Type-N (f) adapter - Type-N (m) to Type-N (m) adapter

1. This ECal module cannot be used in the low frequency range below 300 kHz.

2. Mixed connector options are also available. Visit our website for more details about the ECal: [www.agilent.com/find/ecal](http://www.agilent.com/find/ecal)



## Calibration kits (for 50 $\Omega$ system, continued)

Model No.	Description
3.5mm	
Mechanical calibration kits	
85033E	50 $\Omega$ standard calibration kit, DC to 9 GHz. Includes; - 3.5 mm (m) Load / 3.5 mm (m) Open / 3.5 mm (m) Short - 3.5 mm (f) Load / 3.5 mm (f) Open / 3.5 mm (f) Short - Torque wrench
85033E-100	Adds 3.5mm (f) to 3.5 mm (f) adapter
85033E-200	Adds 3.5mm (m) to 3.5 mm (m) adapter
85033E-300	Adds 3.5mm (f) to 3.5 mm (m) adapter
85033E-400	Adds; - 3.5 mm (m) to 50 $\Omega$ type- N (m) adapter - 3.5 mm (f) to 50 $\Omega$ type- N (f) adapter - 3.5 mm (f) to 50 $\Omega$ type- N (m) adapter - 3.5 mm (m) to 50 $\Omega$ type- N (f) adapter
85033E-500	Adds; - 3.5 mm (m) to 7 mm adapter (2 qty.) - 3.5 mm (f) to 7 mm adapter (2 qty.)
Electronic calibration kits	
85093C <sup>1</sup>	RF ECal module 2-port (3.5 mm), 300 kHz to 9 GHz
85093C-M0F <sup>2</sup>	3.5 mm (f) to 3.5 mm (m) RF ECal module
85093C-00M <sup>2</sup>	3.5 mm (m) to 3.5 mm (m) RF ECal module
85093C-00F <sup>2</sup>	3.5 mm (f) to 3.5 mm (f) RF ECal module
85093C-00A	Adds; - 3.5 mm (f) to 3.5 mm (f) adapter - 3.5 mm (m) to 3.5 mm (m) adapter
Selectable connector type	
Electronic calibration kit	
N4431B <sup>1</sup>	RF ECal module 4-port, 9 kHz to 13.5 GHz. The connector type depends on the option.
N4431B-010 <sup>2</sup>	Four 3.5 mm (f) connectors
N4431B-020 <sup>2</sup>	Four 50 $\Omega$ type-N (f) connectors

1. These ECal modules cannot be used in the low frequency range below 300 kHz or 9 kHz.

2. Mixed connector options are also available. Visit our website for more details about the ECal: [www.agilent.com/find/ecal](http://www.agilent.com/find/ecal)

## Calibration kits (for 50 $\Omega$ system, continued)

Model No.	Description
7-16	
Mechanical calibration kits	
85038A	50 $\Omega$ standard calibration kit, DC to 7.5 GHz. Includes; - 7-16 (m) Load / 7-16 (m) Open / 7-16 (m) Short - 7-16 (f) Load / 7-16 (f) Open / 7-16 (f) Short - Torque wrench - Open-end wrench
85038F	50 $\Omega$ standard calibration kit, DC to 7.5 GHz. Includes; - 7-16 (f) Load / 7-16 (f) Open / 7-16 (f) Short - 7-16 (f) to 7-16 (f) adapter
85038M	50 $\Omega$ standard calibration kit, DC to 7.5 GHz. Includes; - 7-16 (m) Load / 7-16 (m) Open / 7-16 (m) Short - 7-16 (m) to 7-16 (m) adapter
Electronic calibration kits	
85098C <sup>1</sup>	RF ECal module 2-port (7-16), 300 KHz to 7.5 GHz. The sexes of the connectors depend on the option.
85098C-M0F <sup>2</sup>	7-16 (m) to 7-16 (f) RF ECal module
85098C-00F <sup>2</sup>	7-16 (f) to 7-16 (f) RF ECal module
85098C-00M <sup>2</sup>	7-16 (m) to 7-16 (m) RF ECal module
85098C-00A	Adds; - 7-16 (m) to 7-16 (m) adapter - 7-16 (f) to 7-16 (m) adapter
7mm	
Mechanical calibration kits	
85031B	50 $\Omega$ economy calibration kit, DC to 6 GHz. Includes; - 7 mm Load (2 qty.) - 7 mm combined Open/Short

1. This ECal module cannot be used in the low frequency range below 300 kHz.

2. Mixed connector options are also available. Visit our website for more details about the ECal: [www.agilent.com/find/ecal](http://www.agilent.com/find/ecal)

## Test accessories (for 75 $\Omega$ system)

Model No.	Description
<b>Test Port Cable</b>	
11857B	75 $\Omega$ type-N cable set, 61 cm (24 in). Includes; <ul style="list-style-type: none"> <li>- Type-N (m) to type-N (m) cable</li> <li>- Type-N (m) to type-N (f) cable</li> </ul>
11857F	75 $\Omega$ type-N to type-F cable set, 61 cm (24 in)
11857F-M0F	Includes; <ul style="list-style-type: none"> <li>- Type-N (m) to type-F (m) cable</li> <li>- Type-N (m) to type-F (f) cable</li> </ul>
11857F-00F	Includes; <ul style="list-style-type: none"> <li>- Type-N (m) to type-F (f) cable</li> </ul>
11857F-00M	Includes; <ul style="list-style-type: none"> <li>- Type-N (m) to type-F (m) cable</li> </ul>
11857-60005	Precision 75 $\Omega$ Type-N cable, 61 cm (24 in) cable with male connectors.
<b>Minimum Loss Pad</b>	
11852B	Type-N minimum loss pad. DC to 3 GHz, 50 $\Omega$ type-N (f) to 75 $\Omega$ type-N (m)
11852B-004	50 $\Omega$ type-N (m) to 75 $\Omega$ type-N (f)

## Calibration kits (for 75 $\Omega$ system)

Model No.	Description
<b>Type-N</b>	
<b>Mechanical calibration kits</b>	
85036B	75 $\Omega$ standard calibration kit, DC to 3 GHz. Includes; <ul style="list-style-type: none"> <li>- Type-N (m) broadband load</li> <li>- Type-N (f) broadband load</li> <li>- Type-N (m) short</li> <li>- Type-N (f) short</li> <li>- Type-N (m) open</li> <li>- Type-N (f) open body</li> <li>- Type-N (f) open center conductor extender</li> <li>- Type-N (m) to type-N (m) adapter</li> <li>- Type-N (f) to type-N (f) adapter</li> <li>- Type-N (m) to type-N (f) adapter</li> </ul>
85036E	75 $\Omega$ economy calibration kit, DC to 3 GHz. Includes; <ul style="list-style-type: none"> <li>- Type-N (m) broadband load</li> <li>- Type-N (m) combined Open/Short</li> </ul>
<b>Electronic calibration kits</b>	
85096C <sup>1</sup>	RF ECal module 2-port (75 $\Omega$ type-N), 300 kHz to 3 GHz. The sexes of the connectors depend on the option.
85096C-M0F	Type-N (m) to Type-N (f) RF ECal module
85096C-00F	Type-N (f) to Type-N (f) RF ECal module
85096C-00M	Type-N (m) to Type-N (m) RF ECal module
85096C-00A	Adds; <ul style="list-style-type: none"> <li>- Type-N (f) to Type-N (f) adapter</li> <li>- Type-N (m) to Type-N (m) adapter</li> </ul>

1. This ECal module cannot be used in the low frequency range below 300 kHz.

## Calibration kits (for 75 $\Omega$ system)

Model No.	Description
Type-F	
Mechanical calibration kits	
85039B	75 $\Omega$ economy calibration kit, DC to 3 GHz
85039B-M0F	Includes; <ul style="list-style-type: none"> <li>- Type-F (m) Load / Type-F (m) Open / Type-F (m) Short</li> <li>- Type-F (f) Load / Type-F (f) Open / Type-F (f) Short</li> <li>- Type-F (m) to type-F (m) adapter</li> <li>- Type-F (f) to type-F (f) adapter</li> <li>- Type-F (f) to type-N (m) adapter</li> <li>- Type-F (m) to type-N (f) adapter</li> </ul>
85039B-00F	Includes; <ul style="list-style-type: none"> <li>- Type-F (f) Load</li> <li>- Type-F (f) Short</li> <li>- Type-F (f) Open</li> <li>- Type-F (f) to type-F (f) adapter</li> </ul>
85039B-00M	Includes; <ul style="list-style-type: none"> <li>- Type-F (m) Load</li> <li>- Type-F (m) Short</li> <li>- Type-F (m) Open</li> <li>- Type-F (m) to type-F (m) adapter</li> </ul>
Electronic calibration kits	
85099C <sup>1</sup>	2-port (type-F), 300 kHz to 3 GHz. The sexes of the connectors depend on the option.
85099C-M0F	Type-F (m) to Type-F (f) RF ECal module
85099C-00F	Type-F (f) to Type-F (f) RF ECal module
85099C-00M	Type-F (m) to Type-F (m) RF ECal module
85099C-00A	Adds; <ul style="list-style-type: none"> <li>- Type-F (f) to Type-F (f) adapter</li> <li>- Type-F (m) to Type-F (m) adapter</li> </ul>

1. This ECal module cannot be used in the low frequency range below 300 kHz.

## Impedance test accessories <sup>1,2</sup>

Model No.	Description
<b>Terminal adapter and calibration kit</b>	
<b>Mechanical calibration kits</b>	
16201A	7 mm terminal adapter kit
16201A-001 <sup>3</sup>	7 mm terminal adapter kit for E5061B
16195B	7 mm calibration kit (open/short/load, and low-loss capacitor)
85031B	7 mm calibration kit (open/short/load)
<b>7 mm test fixtures</b>	
16092A	Test fixture, 500 MHz, for SMD and leaded DUT
16192A	SMD test fixture, 2 GHz
16196A/B/C/D	SMD test fixture, 3 GHz
16197A	SMD test fixture, 3 GHz
<b>4-terminal-pair test fixtures</b>	
16047E	Test fixture, for leaded DUT
16034E/G/H	SMD test fixture

## General accessories

Model No.	Description
<b>Interface cables</b>	
10833A	GPIB Cable, 1 m (3.3 ft)
10833B	GPIB Cable, 2 m (6.6 ft)
10833C	GPIB Cable, 4 m (13.1 ft)
10833D	GPIB Cable, 0.5 m (1.6 ft)
10833F	GPIB Cable, 6 m (19.7 ft)
10833G	GPIB Cable, 8 m (26.2 ft)
82357B	GPIB to USB Interface: Provides a direct connection from a USB port to GPIB port
<b>System racks and cases</b>	
5063-9216	Rack mount kit, for use without handles: may be ordered as option 1CM
5063-9229	Front handle kit: may be ordered as option 1CN
5188-4430	Rack mount and front handle kit: may be ordered as option 1CP
E3663AC	Rack mount rail kit, for use with 5063-9216 or 5188-4430
1180CZ	Testmobile Scope Cart

1. For more detailed information about how to select impedance test accessories for the E5061B-3L5/005, refer to 5990-7033EN
2. For more detailed information about applicable DUT size of these test fixtures, refer to Accessories Selection Guide for Impedance Measurement (5965-4792E).
3. Option 001 is the only option for the 16201A. Must choose this option when ordering the 16201A.

## Upgrade kits

The following upgrade kits are available for adding the options of the E5061B.

Hardware upgrade (Installed by the Agilent service center)			
Upgrade kit No. (Order with this No.)	Description	Option No.	Customer installable
E5061BU	Upgrade kit		
E5061BU-1E5	Add high stability time base	E5061B-1E5	No

Software upgrade			
Upgrade kit No. (Order with this No.)	Description	Option No.	Customer installable
E5006A	Time domain/fault location analysis	E5061B-010	Yes
E5006A-1FP	Fixed, Perpetual license		
E5007A <sup>1,2</sup>	Impedance analysis for E5061B-3L5 LF-RF network analyzer	E5061B-005	Yes
E5007A-1FP	Fixed, Perpetual license		

Impedance accessory			
Upgrade kit No. (Order with this No.)	Description	Option No.	Customer installable
E5061-60109	50 $\Omega$ resistor set (Equivalent to E5061B-720)	E5061B-720	N/A

## Literature resources

You can find detail information about the key features, application examples, and technical specification of the E5061B in the following document.

Literature resources for the E5061B-3L5	
Literature number	Literature title
5990-6794EN	Agilent E5061B Network Analyzer Brochure
5990-4392EN	Agilent E5061B Network Analyzer Data Sheet
5990-7033EN	Agilent E5061B-3L5/005 Impedance Analysis Function Data Sheet and Configuration Guide

## Web resources

Have access to the following website to acquire the latest news, product and support information, application literature and more. <http://www.agilent.com/find/e5061b>

1. This option is not applicable for the E5061B RF NA options 1x5/1x7/2x5/2x7.
2. The firmware must be Rev. A.02.00 or later.



### Agilent Email Updates

[www.agilent.com/find/emailupdates](http://www.agilent.com/find/emailupdates)

Get the latest information on the products and applications you select.



[www.lxistandard.org](http://www.lxistandard.org)

LAN eXtensions for Instruments puts the power of Ethernet and the Web inside your test systems. Agilent is a founding member of the LXI consortium.

### Agilent Channel Partners

[www.agilent.com/find/channelpartners](http://www.agilent.com/find/channelpartners)

Get the best of both worlds: Agilent's measurement expertise and product breadth, combined with channel partner convenience.



Agilent Advantage Services is committed to your success throughout your equipment's lifetime. We share measurement and service expertise to help you create the products that change our world. To keep you competitive, we continually invest in tools and processes that speed up calibration and repair, reduce your cost of ownership, and move us ahead of your development curve.

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[www.agilent.com/quality](http://www.agilent.com/quality)

[www.agilent.com](http://www.agilent.com)

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[www.agilent.com/find/contactus](http://www.agilent.com/find/contactus)

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Canada	(877) 894 4414
Brazil	(11) 4197 3500
Mexico	01800 5064 800
United States	(800) 829 4444

#### Asia Pacific

Australia	1 800 629 485
China	800 810 0189
Hong Kong	800 938 693
India	1 800 112 929
Japan	0120 (421) 345
Korea	080 769 0800
Malaysia	1 800 888 848
Singapore	1 800 375 8100
Taiwan	0800 047 866
Other AP Countries	(65) 375 8100

#### Europe & Middle East

Belgium	32 (0) 2 404 93 40
Denmark	45 70 13 15 15
Finland	358 (0) 10 855 2100
France	0825 010 700*
	*0.125 €/minute
Germany	49 (0) 7031 464 6333
Ireland	1890 924 204
Israel	972-3-9288-504/544
Italy	39 02 92 60 8484
Netherlands	31 (0) 20 547 2111
Spain	34 (91) 631 3300
Sweden	0200-88 22 55
United Kingdom	44 (0) 118 9276201

*For other unlisted Countries:*

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