

Keysight E5061B

ENA Vector Network Analyzer

Configuration Guide



Ordering guide

The following steps will guide you through configuring your E5061B.

Standard furnished item ¹	
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 Ω RF NA options	
E5061B-115	Transmission/Reflection test set, 100 kHz to 1.5 GHz, 50 Ω system impedance
E5061B-215	S-parameter test set, 100 kHz to 1.5 GHz, 50 Ω system impedance
E5061B-135	Transmission/Reflection test set, 100 kHz to 3 GHz, 50 Ω system impedance
E5061B-235	S-parameter test set, 100 kHz to 3GHz, 50 Ω system impedance
75 Ω RF NA options	
E5061B-117	Transmission/Reflection test set, 100 kHz to 1.5 GHz, 75 Ω system impedance
E5061B-217	S-parameter test set, 100 kHz to 1.5 GHz, 75 Ω system impedance
E5061B-137	Transmission/Reflection test set, 100 kHz to 3 GHz, 75 Ω system impedance
E5061B-237	S-parameter test set, 100 kHz to 3GHz, 75 Ω system impedance
LF-RF NA option ²	
E5061B-3L3	LF-RF network analyzer with DC bias source, 5 Hz to 500 MHz
E5061B-3L4	LF-RF network analyzer with DC bias source, 5 Hz to 1.5 GHz
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 ^{3,4}	Impedance analysis for E5061B-3L3/3L4/3L5 LF-RF network analyzer
Accessory	
E5061B-720 ^{4,5}	Add 50 Ω resistor set

1. Keyboard and mouse are not furnished as standard. Refer to "Step 6. accessory option" for the selection of these items.
2. The E5061B-3L3/3L4/3L5 includes the 50 ohm S-parameter test set (5 Hz to 500 M/1.5 G/3 GHz), and the gain-phase test port (5 Hz to 30 MHz)
3. This option is not applicable for the E5061B RF NA options 1x5/2x5/1x7/2x7.
4. Refer to "Upgrade Kit" section for retrofit information on the above option.
5. 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 ¹	Add High stability time base
E5061B-721	Add GPIB interface (must choose either Option 721 or 722)
E5061B-722	Without GPIB interface (must choose either Option 721 or 722)
E5061B-731	Add handler I/O interface (must choose either Option 731 or 732)
E5061B-732	Without handler I/O Interface (must choose either Option 731 or 732)

Step 4. Choose storage option ²

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 ³	Time domain/fault location analysis
E5061B-006 ⁴	Wireless power transfer 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 (if not required, go to step 8)

Option No.	Description
E5061B-1A7	Calibration + Uncertainties + Guardbanding
E5061B-A6J	ANSI Z540-1-1994 Calibration

1. Refer to "Hardware upgrade" section for retrofit information on the above options.
2. Option 020 is the only storage 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.
4. This option is not applicable for the E5061B 75 ohm test set options 1x7/2x7 and Transmission/Reflection test set options 1x5.

Test accessories and calibration kits

A complete list of RF test accessories and calibration kits are available on our Web site:

www.keysight.com/find/mta

www.keysight.com/find/ecal

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** 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

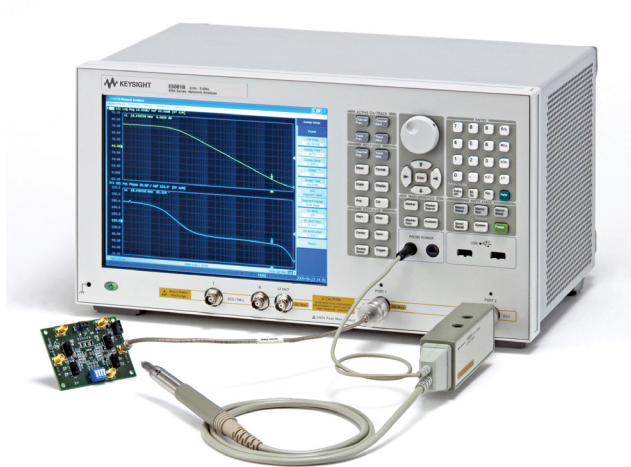
Test accessories (for 50 Ω system)

Model No.	Description
Test Port Cable	
N6314A	50 Ω type-N (m) to type-N (m) cable, DC to 12.4 GHz, 61 cm (24 in)
N6315A	50 Ω 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, 152 cm (60 in)
11857D	50 Ω 7 mm to 7 mm cable, 300 kHz to 6 GHz, 61 cm (24 in)
8120-1838	50 Ω BNC (m) to BNC (m) cable, 30 cm (12 in)
8120-1839	50 Ω BNC (m) to BNC (m) cable, 61 cm (24 in)
Adapter	
1250-0780	50 Ω type-N (m) to 50 Ω BNC (f) adapter
1250-1200	50 Ω BNC (f) to SMA (m) adapter
1250-2015	50 Ω BNC (m) to SMA (f) adapter
Accessory Kit	
11853A	50 Ω 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 Ω 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
Adapter Kit	
11878A	50 Ω 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
Power Splitter ¹	
11667L	BNC (f) connectors, DC to 2 GHz
DC Block	
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

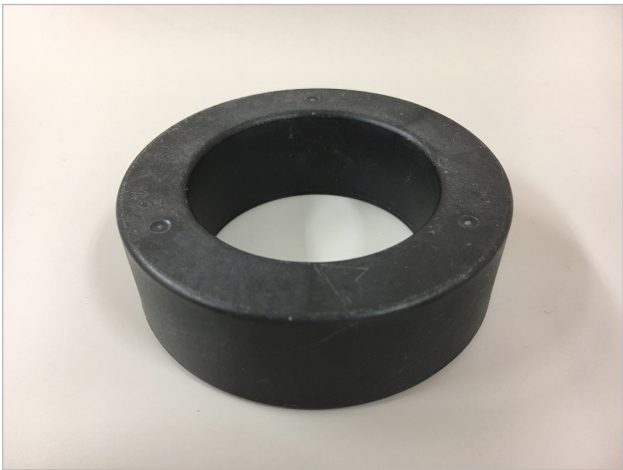


1. For transmission measurement with the gain-phase test port of the E5061B-3L3/3L4/3L5. Required for milliohm impedance measurements in the low frequency range.

Test accessories (for 50 Ω system, continued)	
Model No.	Description
Active Probe	
41800A	5 Hz to 500 MHz active probe, 100 k Ω (probe alone) / 1 M Ω (with 10:1 or 100:1 divider). Includes; - Probe to BNC adapter - Hook tip adapter - Slip-on tip adapter - 10:1 and 100:1 divider
41800A-001	Adds a cable to connect the probe with an external power supply. This option is not necessary for the E5061B-3L3/3L4/3L5 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; - Probe tip to type-N Adapter - 10:1 divider - Hook tip adapter - Slip-on tip adapter - Leads
Active Probe	
85024A	DC to 200 MHz differential active probe. The 1142A is required. Includes;
Common mode choke	
9170-2549	Core-Toroidal Common Mode Choke 204.2 mm
Probe Control and Power Module	
1142A	Probe control and power module for the 1141A Differential Active Probe.



41800A and E5061B



Common mode choke (Part number: 9170-2549)

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

Non-Keysight test accessories (for 50 Ω system)

Model No.	Description
Injection Transformer	
Picotest J2100A Injection Transformer	1 Hz to 5 MHz (when terminated with 5 Ω), 10 Hz to 5 MHz (when terminated with 50 Ω), Input: BNC(f), Output: Banana jacks, 600 V/CAT II isolation voltage. Optimized for loop gain measurements of DC-DC converters and switching power supplies.
Picotest J2101A Injection Transformer	10 Hz to 45 MHz (when terminated with 5 Ω), 60 Hz to 45 MHz (when terminated with 50 Ω), Input: BNC(f), Output: Banana jacks, 600 V/CAT II isolation voltage. Optimized for loop gain measurements of DC-DC converters and switching power supplies.
North Hills Signal Processing 0017CC 50 Ω Video Isolation Transformer	10 Hz to 5 MHz (when terminated with 50 Ω), Input: BNC(f), Output: BNC(f). Applicable to loop gain measurements of DC-DC converters and switching power supplies.
Other Signal Injector	
Picotest J2110A Solid-State Injector (Bode Box)	DC to 40 MHz, Input and output voltage up to ± 10.5 V, Signal input: BNC(f), Output: Banana jacks. Optimized for wide band loop gain measurements of control loop circuits.
Picotest J2120A Line Injector	15 Hz to 5 MHz, up to 50 Vdc / 5 Adc, Signal input: BNC(f), DC input & output: Banana jacks. For PSRR measurements of linear regulators and DC-DC converters.
Picotest J2111A Current Injector	Input: BNC(f), Output: Banana jacks. For output impedance measurements of DC-DC converters with high-voltage outputs up to 40 Vdc. The recommended frequency range with the E5061B is 5 Hz to 1 MHz.
Picotest J2102A Common Mode Transformer	DC to 200 MHz Input BNC(f), Output BNC(f) For output impedance/PSRR measurements; greatly attenuates the effects of low frequency ground loops.
Picotest J2113A Semi-Floating Differential Amplifier	DC to 500 MHz Input BNC(f), Output BNC(f) For output impedance/PSRR measurements; eliminates DC ground loop down to 1 Hz.
Picotest J2160A Probe Adapter	5 Hz to 30 MHz Input BNC(f), Output BNC(f) Easy DUT connection for the output impedance measurements of DC-DC converters with 2-port shunt-thru method
Banana test lead/adaptor	
Pomona Electronics 1166	Banana plug to alligator clip
Pomona Electronics 4650	Banana plug to test clip
Pomona Electronics 4650	Banana plugs to test clips
Pomona Electronics 1269	Banana plugs to BNC(f) adaptor
BNC breakout	
Pomona Electronics 2886	BNC(m) to alligator clips
Pomona Electronics 3789	BNC(m) to test clips
BNC to test clip lead	
Pomona Electronics 3787-C-18	Coax. cable with a BNC(m) connector and test clips at the ends, approx. 60 cm (total length). For probing the DUT from the gain-phase receiver ports.
50 Ω feed through	
Pasternack Enterprises PE6008-50	DC to 1 GHz, 50 Ω BNC(m) to BNC(f) feed through.
DC Block	
Mini-Circuits BLK-89	100 kHz to 8 GHz, 50 Ω SMA(m) to SMA(f) DC blocking capacitor.

Non-Keysight test accessories (for 50 Ω system, continued)



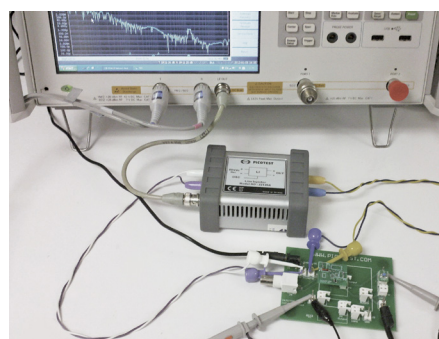
Picotest J2111A Current Injector



Picotest J2120A Line Injector



Picotest J2113A Semi-Floating Differential Amplifier



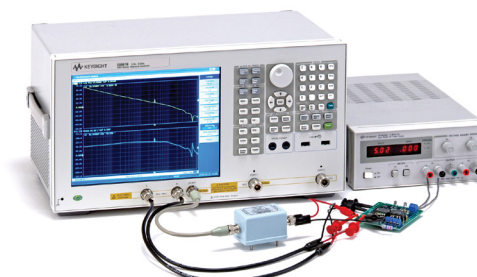
Picotest J2120A Line Injector
(Banana-to-test clip leads connected to its banana jacks)



Picotest J2160A Probe Adapter



North Hills Signal Processing 0017CC



Pomona 3787-C-18 test lead (connected to gain-phase receiver ports)
Pomona 2886 BNC breakout (connected to 0017CC)

Picotest web page:

www.picotest.com

North Hills Signal Processing web page:

www.northhills-sp.com/index.html

Mini-Circuits web page:

www.minicircuits.com/index.html

Pomona Electronics web page:

www.pomonaelectronics.com

Pasternack Enterprises web page:

www.pasternack.com

Calibration kits (for 50 Ω system)

Model No.	Description
Type-N	
Mechanical calibration kits	
85032E	50 Ω economy calibration kit, DC to 6 GHz. Includes; - Type-N (m) fixed load - Type-N (m) combined open/short
85032F	50 Ω 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 Ω type-N (f) to type-N (f) adapter
85032F-200	Adds 50 Ω type-N (m) to type-N (m) adapter
85032F-300	Adds 50 Ω type-N (m) to type-N (f) adapter
85032F-500	Adds; - 50 Ω type-N (m) to 7 mm adapter (2 qty.) - 50 Ω type-N (f) to 7 mm adapter (2 qty.)
Electronic calibration kits	
85092C ¹	RF ECal module 2-port (50 Ω type-N), 300 kHz to 9 GHz. The sexes of the connectors depend on the option.
85092C-M0F ²	Type-N (f) to Type-N (m) RF ECal module
85092C-00M ²	Type-N (m) to Type-N (m) RF ECal module
85092C-00F ²	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
Electronic calibration (ECal) modules	
85092C	RF ECal module 2-port (50 Ω type-N), 300 kHz to 9 GHz. The sexes of the connectors depend on the option.
N7550A ³	Economy ECal module, DC to 4 GHz, 2-port
N7551A ³	Economy ECal module, DC to 6.5 GHz, 2-port
N7552A ³	Economy ECal module, DC to 9 GHz, 2-port
N7553A ³	Economy ECal module, DC to 14 GHz, 2-port
N7554A ³	Economy ECal module, DC to 18 GHz, 2-port
N755xA-NMF	Type-N (m) to Type-N (f) ECal module
N755xA-NMM	Type-N (m) to Type-N (m) ECal module
N755xA-NFF	Type-N (f) to Type-N (f) ECal module

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.keysight.com/find/ecal

3. The E5061B must have firmware revision B.04.86 or above for the operation with the N755xA series ECal module.

Calibration kits (for 50 Ω system, continued)

Model No.	Description
3.5mm	
Mechanical calibration kits	
85033E	50 Ω 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 Ω type- N (m) adapter - 3.5 mm (f) to 50 Ω type- N (f) adapter - 3.5 mm (f) to 50 Ω type- N (m) adapter - 3.5 mm (m) to 50 Ω 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 ¹	RF ECal module 2-port (3.5 mm), 300 kHz to 9 GHz
85093C-M0F ²	3.5 mm (f) to 3.5 mm (m) RF ECal module
85093C-00M ²	3.5 mm (m) to 3.5 mm (m) RF ECal module
85093C-00F ²	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
N7550A ³	Economy ECal module, DC to 4 GHz, 2-port
N7551A ³	Economy ECal module, DC to 6.5 GHz, 2-port
N7552A ³	Economy ECal module, DC to 9 GHz, 2-port
N7553A ³	Economy ECal module, DC to 14 GHz, 2-port
N7554A ³	Economy ECal module, DC to 18 GHz, 2-port
N7555A ³	Economy ECal module, DC to 26.5 GHz, 2-port
N755xA-3MF	3.5 mm (m) to 3.5 mm (f) ECal module
N755xA-3MM	3.5 mm (m) to 3.5 mm (m) ECal module
N755xA-3FF	3.5 mm (f) to 3.5 mm (f) ECal module
Selectable connector type	
Electronic calibration kit	
N4431B ¹	RF ECal module 4-port, 9 kHz to 13.5 GHz. The connector type depends on the option.
N4431B-010 ²	Four 3.5 mm (f) connectors
N4431B-020 ²	Four 50 Ω 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.keysight.com/find/ecal

3. The E5061B must have firmware revision B.04.86 or above for the operation with the N755xA series ECal module.

Calibration kits (for 50 Ω system, continued)	
Model No.	Description
7-16	
Mechanical calibration kits	
85038A	50 Ω 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 Ω 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 Ω 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 ¹	RF ECal module 2-port (7-16), 300 KHz to 7.5 GHz. The sexes of the connectors depend on the option.
85098C-M0F ²	7-16 (m) to 7-16 (f) RF ECal module
85098C-00F ²	7-16 (f) to 7-16 (f) RF ECal module
85098C-00M ²	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 Ω 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.keysight.com/find/ecal

Test accessories (for 75 Ω system)

Model No.	Description
Test Port Cable	
11857B	75 Ω type-N cable set, 61 cm (24 in). Includes; - Type-N (m) to type-N (m) cable - Type-N (m) to type-N (f) cable
11857F	75 Ω type-N to type-F cable set, 61 cm (24 in)
11857F-M0F	Includes; - Type-N (m) to type-F (m) cable - Type-N (m) to type-F (f) cable
11857F-00F	Includes; - Type-N (m) to type-F (f) cable
11857F-00M	Includes; - Type-N (m) to type-F (m) cable
11857-60005	Precision 75 Ω Type-N cable, 61 cm (24 in) cable with male connectors.
Minimum Loss Pad	
11852B	Type-N minimum loss pad. DC to 3 GHz, 50 Ω type-N (f) to 75 Ω type-N (m)
11852B-004	50 Ω type-N (m) to 75 Ω type-N (f)

Calibration kits (for 75 Ω system)

Model No.	Description
Type-N	
Mechanical calibration kits	
85036B	75 Ω standard calibration kit, DC to 3 GHz. Includes; - Type-N (m) broadband load - Type-N (f) broadband load - Type-N (m) short - Type-N (f) short - Type-N (m) open - Type-N (f) open body - Type-N (f) open center conductor extender - Type-N (m) to type-N (m) adapter - Type-N (f) to type-N (f) adapter - Type-N (m) to type-N (f) adapter
85036E	75 Ω economy calibration kit, DC to 3 GHz. Includes; - Type-N (m) broadband load - Type-N (m) combined Open/Short
Electronic calibration kits	
85096C ¹	RF ECal module 2-port (75 Ω 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; - 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.

Calibration kits (for 75 Ω system, continued)

Model No.	Description
Type-F	
Mechanical calibration kits	
85039B	75 Ω economy calibration kit, DC to 3 GHz
85039B-M0F	Includes; - Type-F (m) Load / Type-F (m) Open / Type-F (m) Short - Type-F (f) Load / Type-F (f) Open / Type-F (f) Short - Type-F (m) to type-F (m) adapter - Type-F (f) to type-F (f) adapter - Type-F (f) to type-N (m) adapter - Type-F (m) to type-N (f) adapter
85039B-00F	Includes; - Type-F (f) Load - Type-F (f) Short - Type-F (f) Open - Type-F (f) to type-F (f) adapter
85039B-00M	Includes; - Type-F (m) Load - Type-F (m) Short - Type-F (m) Open - Type-F (m) to type-F (m) adapter
Electronic calibration kits	
85099C ¹	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; - Type-F (f) to Type-F (f) adapter - Type-F (m) to Type-F (m) adapter

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

Impedance test accessories^{1,2}

Model No.	Description
Terminal adapter and calibration kit	
Mechanical calibration kits	
16201A	7 mm terminal adapter kit
16201A-001 ³	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)
7 mm test fixtures	
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
4-terminal-pair test fixtures	
16047E	Test fixture, for leaded DUT
16034E/G/H	SMD test fixture

General accessories

Model No.	Description
Interface cables	
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
System racks and cases	
1CM015A	Rack mount kit, for use without handles: may be ordered as option 1CM
1CN005A	Front handle kit: may be ordered as option 1CN
1CP009A	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-3L3/3L4/3L5+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.

E5061B Upgrade Kits

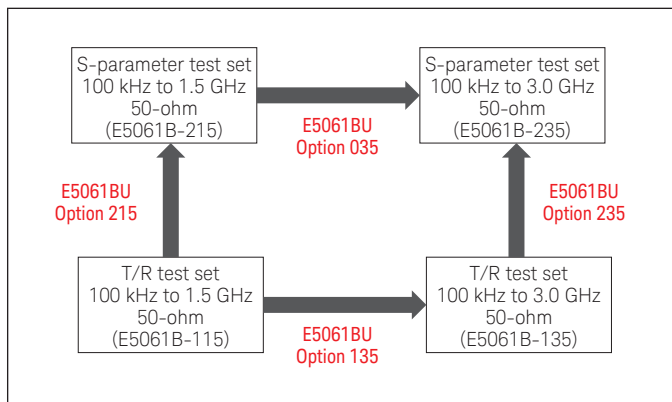
Upgrade kits are available to add E5061B software or hardware features after initial purchase. To upgrade your existing E5061B, order the corresponding item number. For further information, visit: www.keysight.com/find/ena_support

Frequency upgrades

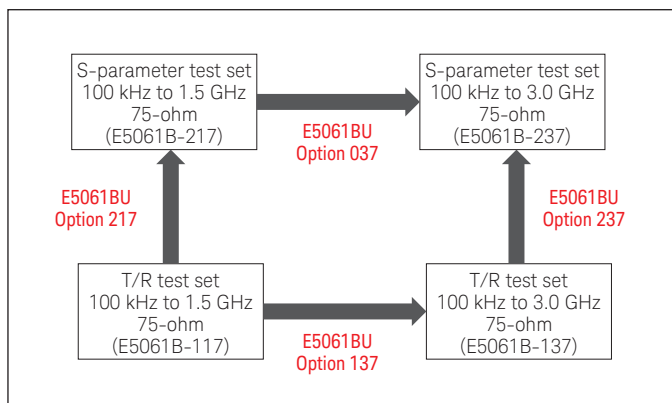
Upgrade kit option no.	Description	From	To	Customer installable
E5061BU-035	Upgrade from 50 Ω 1.5 GHz S-param. To 50 Ω 3 GHz S-param.	E5061B-215	E5061B-235	No
E5061BU-037	Upgrade from 75 Ω 1.5 GHz S-param. To 75 Ω 3 GHz S-param.	E5061B-217	E5061B-237	No
E5061BU-135	Upgrade from 50 Ω 1.5 GHz Trans./Refl. To 50 Ω 3 GHz Trans./Refl.	E5061B-115	E5061B-135	No
E5061BU-137	Upgrade from 50 Ω 1.5 GHz Trans./Refl. To 50 Ω 3 GHz Trans./Refl.	E5061B-117	E5061B-137	No
E5061BU-343	Upgrade from 500 MHz LF-RF To 1.5 GHz LF-RF	E5061B-3L3	E5061B-3L4	No
E5061BU-353	Upgrade from 500 MHz LF-RF To 3 GHz LF-RF	E5061B-3L3	E5061B-3L5	No
E5061BU-354	Upgrade from 1.5 GHz LF-RF To 3 GHz LF-RF	E5061B-3L4	E5061B-3L5	No

Test set upgrades

Upgrade kit option no.	Description	From	To	Customer installable
E5061BU-215	Upgrade from 50 Ω 1.5 GHz Trans./Refl. To 50 Ω 1.5 GHz S-param.	E5061B-115	E5061B-215	No
E5061BU-235	Upgrade from 50 Ω 3 GHz Trans./Refl. To 50 Ω 3 GHz S-param.	E5061B-135	E5061B-235	No
E5061BU-217	Upgrade from 75 Ω 1.5 GHz Trans./Refl. To 75 Ω 1.5 GHz S-param.	E5061B-117	E5061B-217	No
E5061BU-237	Upgrade from 75 Ω 3 GHz Trans./Refl. To 75 Ω 3 GHz S-param.	E5061B-137	E5061B-237	No



E5061B 50 Ω RF NA option upgrade path



E5061B 75 Ω RF NA option upgrade path

Hardware upgrades

Upgrade kit option no.	Description	From	Customer installable
E5061BU-1E5	Add high stability time base	E5061B-1E5	No
E5061BU-721	Add GPIB interface	E5061B-721	No
E5061BU-731	Add handler I/O interface	E5061B-731	No

Software upgrades

Upgrade kit option no.	Description	From	Customer installable
E5006A-1FP	Time domain/fault location analysis, fixed perpetual license	E5061B-010	Yes
E5007A-1FP ^{1,2}	Impedance analysis for E5061B-3L3/3L4/3L5 LF-RF network analyzer, fixed, perpetual license	E5061B-005	Yes
E5061BU-006 ³	Wireless power transfer analysis, fixed, perpetual license	E5061B-006	Yes

CPU/OS upgrades

Upgrade kit option no.	Description	From	Customer installable
E5061BU-040	Upgrade CPU/OS from Windows XP to Windows 7	N/A	No
E5061BU-041	Upgrade CPU/OS from Windows 7 to Windows 10 for E5061B RF network analyzer (Option 1xx/2xx)	N/A	No
E5061BU-042	Upgrade CPU/OS from Windows 7 to Windows 10 for E5061B LF-RF network analyzer (Option 3L3/3L4/3L5)	N/A	No

Impedance analysis accessory

Part no.	Description	Option no.	Customer installable
E5061-60109	50 Ω resistor set	E5061B-720	N/A

Literature resources

E5061B ENA Vector Network Analyzer, Brochure, [5990-6794EN](#)

E5061B ENA Vector Network Analyzer, Data Sheet [5990-4392EN](#)

E5061B ENA Vector Network Analyzer Impedance Analysis Function, Data Sheet and Configuration Guide, [5990-7033EN](#)

Keysight Vector Network Analyzer Selection Guide, [5989-7603EN](#)

Electronic Calibration (ECal) Modules for Vector Network Analyzer, Technical Overview, [5963-3743E](#)

Web resources

www.keysight.com/find/vna

www.keysight.com/find/ecal

www.keysight.com/find/mta

www.keysight.com/find/benchvue

1. This option is not applicable for the E5061B RF NA options 1x5/1x7/2x5/2x7.

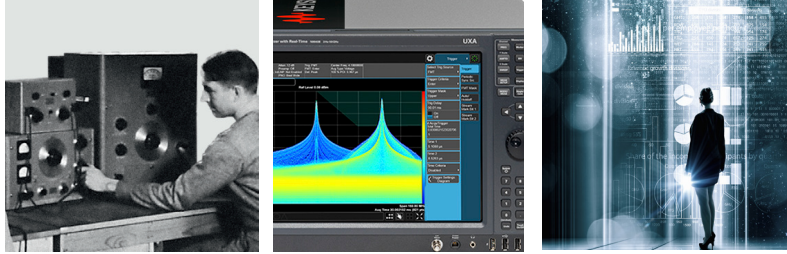
2. The firmware must be Rev. A.02.00 or later.

3. This option is not applicable for the E5061B 75 ohm test set options 1x7/2x7 and Transmission/Reflection test set options 1x5. The firmware must be Rev. B.04.10 or later.

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