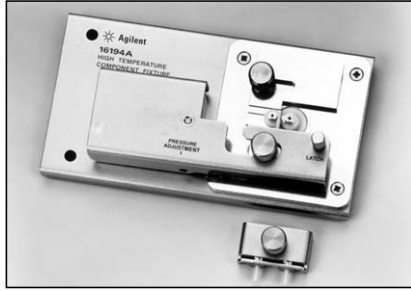


16194A High Temperature Component Test Fixture



Terminal Connector: 7 mm

DUT Connection: 2-Terminal

Electrical Length: 50 mm

Dimensions (approx.): 150(W) x 40(H) x 80(D) [mm]

Weight (approx.): 350 g

Additional Error:

SMD:

Type of Error	Impedance
Proportional Error	$20 \times f^2$ [%]
Open Repeatability	$80 + 250 \times f$ [μ S]
Short Repeatability	$0.2 + 2.5 \times f$ [Ω]

Leaded device:

Type of Error	Impedance
Proportional Error	$20 \times f^2$ [%]
Open Repeatability	$80 + 500 \times f$ [μ S]
Short Repeatability	$0.4 + 12.5 \times f$ [Ω]

f: [GHz]

Description: This test fixture is designed for measuring both axial/radial leaded devices and SMD within the temperature range from -55 to $+200$ °C (when used with the E4991A-007 Temperature Characteristic Test Kit, -55 to $+150$ °C).

Applicable Instrument: 4294A + 42942A, 4395A with Opt.4395A-010 + 43961A, 4396B with Opt.4396B-010 + 43961A, (4287A, E4991A)**

When used with 16085B: 4263B, 4268A, 4279A*, 4284A*, 4285A, 4288A, E4980A, E4981A

* denotes the instrument is obsolete.

** applicable in a limited frequency range.

Frequency:

DC to 500 MHz (with open and short compensation)

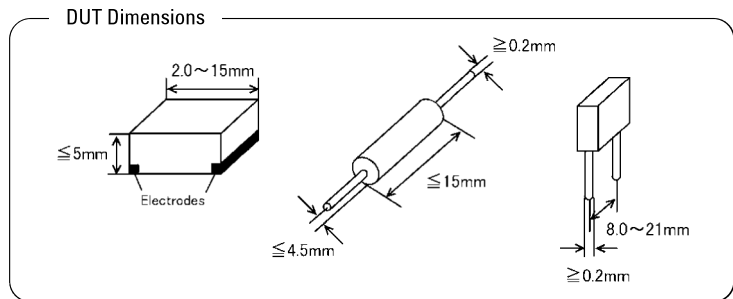
DC to 2 GHz (with open and short and load compensation)

Maximum DC Bias Voltage: ± 40 V

Operating Temperature: -55 °C to $+200$ °C

DUT size: See figure below.

Furnished Accessories:



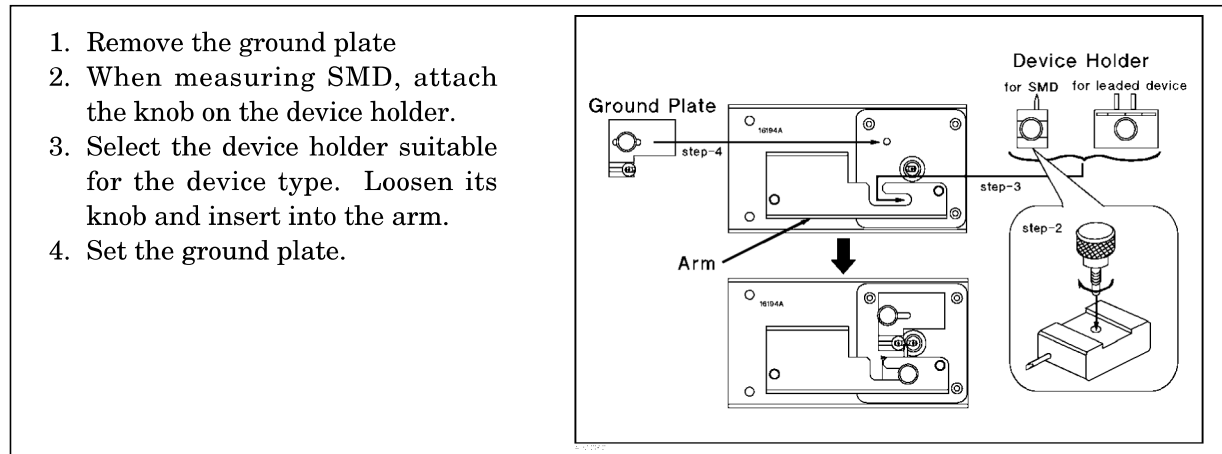
Description	P/N	Qty.	Option
Wrench	8710-1181	1	Standard
Tweezers	8710-2081	1	Standard
50 Ω SMD Resistor	0699-2829	10	Standard
Operation and Service Manual	16194-90010	1	Standard
General Sized			
Shorting Device (1 × 1 × 2.4 (mm))	16191-29001	1	16194A-701
Shorting Device (1.6 × 2.4 × 2 (mm))	16191-29002	1	16194A-701
Shorting Device (2.4 × 2.4 × 3.2 (mm))	16191-29003	1	16194A-701
Shorting Device (2.4 × 2.4 × 4.5 (mm))	16191-29004	1	16194A-701
EIA/EIAJ Industrial Standard Sized			
Shorting Device (1 × 0.5 × 0.5 (mm))	16191-29005	1	16194A-010
Shorting Device (1.6 × 0.8 × 0.8 (mm))	16191-29006	1	16194A-010
Shorting Device (2.0 × 1.2 × 0.8 (mm))	16191-29007	1	16194A-010
Shorting Device (3.2 × 1.6 × 0.8 (mm))	16191-29008	1	16194A-010
Case for Shorting Devices	1540-0692	1	16194A-010/701

Options:

16194A-010: Add EIA/EIAJ industrial standard sized-shorting bar set

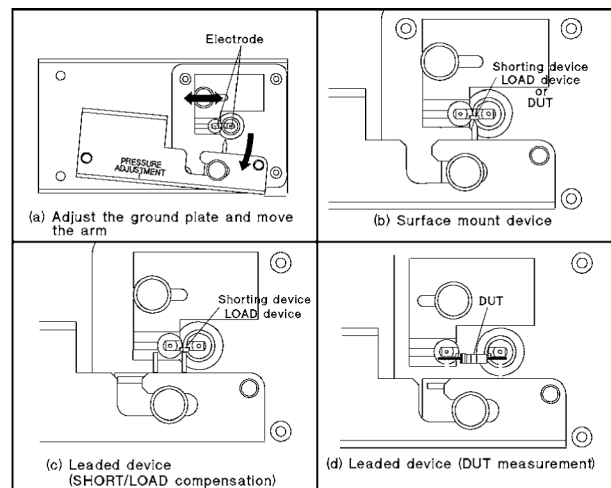
16194A-701: Add general sized shorting bar set

Compensation and Measurement: Before beginning the measurement, the appropriate device holder (for a SMD or lead component) must be prepared with the test fixture. The following figure shows how the device holder is exchanged to match the device type.



Exchanging the device holder

The next step is to perform open and short compensations in combination with the electrical length compensation. When measuring above 500 MHz, load compensation is also recommended. The fixture's electrical length must be entered into the electrical length compensation function of the measurement instrument first. Then open compensation is performed by separating the high and the low electrodes from each other. The separation should be equivalent in size to the DUT's width. Short compensation is performed by using the option 16194A-010/701 shorting bar set. Load compensation is performed by using the furnished 50 Ω SMD chip resistor. After performing open, short, and load compensations in combination with the electrical length compensation, the DUT is inserted into the test fixture. The following figures show how measurement is performed.



Placing the device