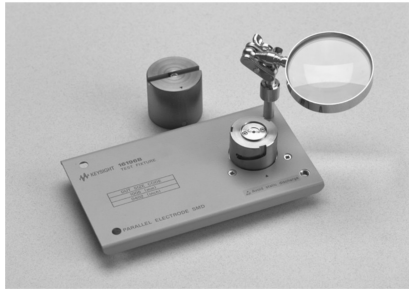


Up to 3 GHz (7 mm): SMD *continued*

16196C Parallel electrode SMD test fixture



Terminal connector: 7 mm
 DUT connection: 2-Terminal
 Electrical length: 27.1 mm
 Dimensions (approx.):
 140 (W) x 48 (H) x 78 (D) [mm]
 Weight (approx.): 250 g
 Additional error:

Type of error	Impedance
Proportional error	$1.0 \times f^2$ [%]
Open repeatability	$5 + 40 \times f$ [μ S]
Short repeatability	$30 + 125 \times f$ [m Ω]

f: frequency [GHz]

Description: This test fixture is designed for impedance evaluations of parallel electrode SMDs. It achieves stable frequency characteristics up to 3 GHz and provides highly repeatable measurements. The applicable SMD size code is 0201 (inch)/0603 (mm).

Applicable instrument: E4982A, E4990A + 42942A*, E4991B, E5061B-3L3/3L4/3L5 with Opt. 005 + 16201A

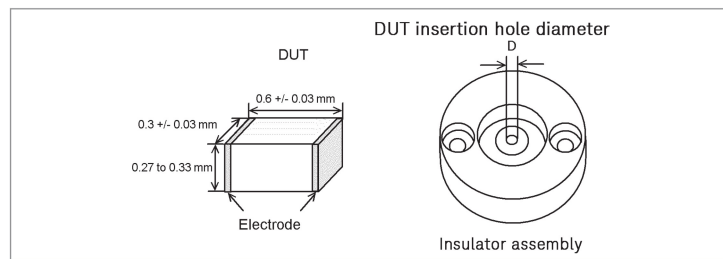
* Option E4990A-120 is required

Frequency: DC to 3 GHz

Maximum voltage: ± 42 V peak max. (AC +DC)

Operating temperature: -55 to $+85^\circ\text{C}$

DUT size: The applicable SMD size is 0201 (inch)/0603 (mm). For details, see the figure below.



The 16196C is furnished with one insulator assembly. See the table below for the dimensions of the insulator assembly.

Hole diameter of insulator assembly (mm)	SMD case size examples Length, width, height (mm)
16196C ϕ 0.48	0.6 x 0.3 x 0.3

Furnished accessories:

Description	P/N	Qty.
Operation and service manual	16196-90040	1
Insulator Assembly ϕ 0.48 mm	16196-60312	1
Open plate	16196-29002	1
Short plate	16196-29028	1
Push ring	16196-24004	1
Magnifying lens ¹	16193-60002	1
Tweezers ¹	8710-2081	1
Wrench	8710-0909	1
Cleaning rod	5182-7586	1
Carrying case	16196-60350	1

1. Opt. 16196C-710 only



Up to 3 GHz (7 mm): SMD *continued*

16196C Parallel electrode SMD test fixture *continued*

Options:

16196C-710: Add the magnifying lens and tweezers

To maintain adequate measurement performance, keep the electrodes and the short plate in good condition. Contaminants and abrasion on these parts considerably affect measurement results, especially for low value measurements. Periodic fixture cleaning and part replacement is recommended to avoid deterioration of measurement performance. The 16196x fixtures are designed with simplicity in mind, so that an operator can easily replace parts. Spare parts, which are likely to be abraded, are supplied with the 16196U Maintenance Kit.

16196U Maintenance kit

Opt. 16196U-010: Upper electrode, 5 piece set (common to 16196A/B/C models)

Opt. 16196U-300: Short plate for 0201 (inch)/0603 (mm) size, 5 piece set (for 16196C)

Opt. 16196U-310: Lower electrode, 5 piece set (for 16196C)

Compensation and measurement: Open and short compensations are recommended in combination with the electrical length compensation before measurement. The fixture's electrical length must be entered into the electrical length compensation function of the measurement instrument first. Next, open compensation is performed by placing the furnished open plate on top of the insulator assembly. Short compensation is performed by placing the furnished shorting plate on top of the insulator assembly. After performing open and short compensations in combination with the electrical length compensation, the DUT is inserted into the test fixture. Once the measurement of the DUT is complete, remove the DUT from the fixture, by using the furnished push ring. Refer to the 16196A figures to see how compensation and measurement is performed.

