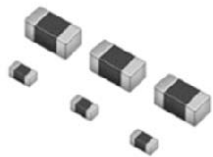


Keysight E4981A Capacitance Meter 120 Hz/1 kHz/1 MHz

A New Standard for Ceramic Capacitor Production Tests

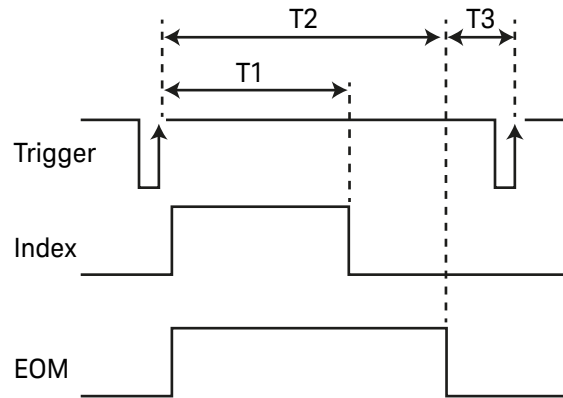
The Keysight Technologies, Inc. E4981A capacitance meter offers a high-speed with reliable measurements for ceramic capacitor production tests. The E4981A realizes the capacitance measurement capabilities from low to high values with outstanding high accuracy. The E4981A is the direct successor of the 4268A (120 Hz/1 kHz) and 4288A (1 kHz/1 MHz), which are the de-facto standards in ceramic capacitor testing.



Ceramic chip capacitor

Key features

1. Fast measurement speed
 - 2.0 ms (1 MHz), 2.7 ms (1 kHz), 10.7 ms (120 Hz)
 - More than two times faster measurement speed than 4268A and 4288A



Frequency	T1	T2 (1 ¹)		T3	4268A		4268B	
		Status register update			(Trigger wait time)		T2	T3
1 MHz	1.3 ms	On	Off	0 ms	NA	NA	6.5 ms	6.5 ms
1 kHz	2.0 ms	On	Off	0 ms	22.5 ms	22.5 ms	6.5 ms	6.5 ms
120 Hz	10.0 ms	On	Off	0 ms	22.5 ms	22.5 ms	NA	NA

1. 1 tolerance is ±0.5 ms

2. Accurate and repeatable measurement
 - Basic accuracy C: ± 0.07 %, D: ± 0.0005
 - Smaller variance in low capacitance measurements

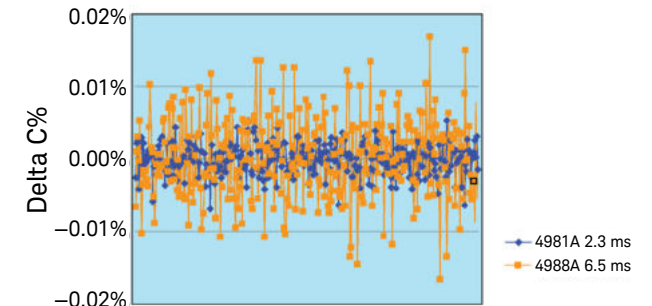


Figure 2. Meas. Variance comparison for 1 pF meas. @1 MHz, 1V

3. System integration capability
 - GPIB/LAN/USB interfaces
 - Handle I/F, scanner I/F
 - Contact check function
 - Synchronous source
 - 1 MHz test frequency shift (±1 %, ±2 %)

Models

Model	Description
E4981A	Capacitance Meter, 120 Hz/1 kHz/1 MHz

Options

Model	Description
E4981A-001	Frequency, 120 Hz/1 kHz/1 MHz
E4981A-002	Frequency, 120 Hz/1 kHz
E4981A-600	Delete front handle kit
E4981A-ABA	U.S. – English localization
E4981A-ABJ	Japan – Japanese localization
E4981A-1A7	17025 compliant calibration
E4981A-A6J	ANSI Z540 compliant calibration

Application support literatures

For additional literature and product information, refer to following literatures.

Literature	Publication number
Impedance Measurement Handbook - 4th Edition - Application Note	5950-3000
Migrating from the 4268A/4288A Capacitance Meter to the E4981A Capacitance Meter - Technical Overview	5989-9957EN
E4981 Capacitance Meter - Brochure	5989-8964EN
E4981A Capacitance Meter - Data Sheet	5989-8963EN
E4981A Capacitance Meter - Configuration Guide	5989-8868EN

Recommended accessories

DUT	Fixture type	Model	Description
Lead	Axial/radial	16047A/E	Spring contact type (A) Screw-lock type (E)
	Clip-type	16089A/B/C (5 Hz to 100 kHz)	Large clips (A)/medium clips (B)/IC clips (C)
SMD/chip	SMD/chip	16034E/G/H	Large contact (E)/small contact (G)/for array components (H)
	Tweezers-type	16334A	Tweezers (cable length 1 m)
	Extension cable	16048A/D	BNC test leads (1/2 m)
	External DC bias	16065A	± 200 V dc max.
16065C		Adapter, ± 40 V dc max.	

For more details on the option configuration, refer to the configuration guide 5989-8868EN.

Refer to the technical overview 5989-8868EN for the upgrades.

For other accessories, refer to the configuration guide 5989-8868EN.

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