Keysight E4980AL Precision LCR Meter versus WK 43100 LCR Meter

Keysight E4980AL



- Combination of accuracy, speed and versatility
- Wide variety of accessories



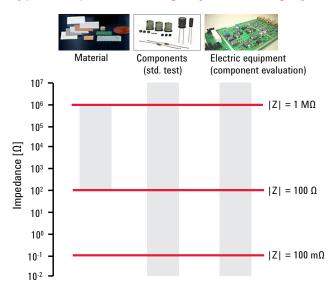


	Keysight E4980AL		WK 43100	
Frequency range	20 Hz to 1 MHz (Option 102)		20 Hz to 1 MHz	
Test signal level	2 Vrms		2 Vrms	√
Test signal level monitor	Yes	√	No	Х
ALC	Yes	√	No	Χ
Basic accuracy (freq. range)	0.05% (100 Hz to 1 MHz)	√	0.1% (around 250 Hz to 1 kHz)	Х
Measurement speed for basic accuracy	118 msec (med. at 1 MHz)	√	445 msec (slow at 100 kHz)	Х
Measurement accuracy for high/med/ high/med/low Impedance	See next page	1	See next page	Х
DC bias signal level	1.5 V, 2 V	√	2 V	Х
DCR measurement	Yes	√	Yes (Option R)	√
Compensation	Open/Short/Load	√	Open/Short	Х
Cable length correction	1/2/4 m	√	No	Χ
List sweep	Test frequency, test signal voltage/ current (201 points)	1	Test frequency (8 points)	X
Comparator BIN sort	Yes	1	Yes	√
USB/LAN interface	Yes	√	No	Х
Test accessary	Over 20 kinds	√	7 kinds	Х
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Sources: E4980A/E4980AL Data Sheet (Published in December 2014, 5989-4435EN) 4310/4320/4350/43100 Product Specification Issue B



Typical Impedance Range by DUT Category

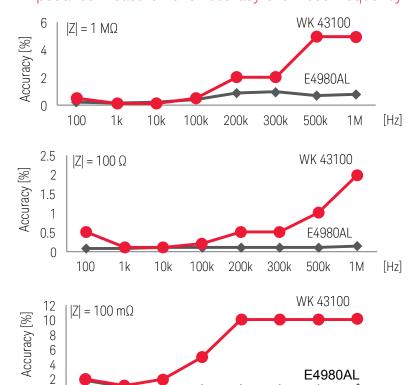


For basic testing or evaluation of electronic components such as capacitors and materials, wide impedance measurement range and test frequency range are required. For example, the high-value capacitance is measured at 120 Hz, and the low-value capacitance is measured at 1 MHz.

e.g. 10 mF capacitor: $|Z| = 133 \text{ m}\Omega$ at 120 Hz 1 pF capacitor: $|Z| = 159 \text{ k}\Omega$ at 1 MHz

www.keysight.com/find/E4980AL

Impedance Measurement Accuracy over Test Frequency



Sources: E4980A/E4980AL Data Sheet 5989-4435EN, 4310/4320/4350/43100 Product Specification **Measurement condition:**

Test signal level: 1Vrms, cable length: 0 m, measurement speed: E4980AL med., WK 43100 slow

100k

200k

Frequency [Hz]

300k

100

1k

10k



500k

1M

[Hz]