

Competitive Comparison

Keysight E4980AL Precision LCR Meter versus GW LCR-8101G LCR Meter

Keysight E4980AL



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

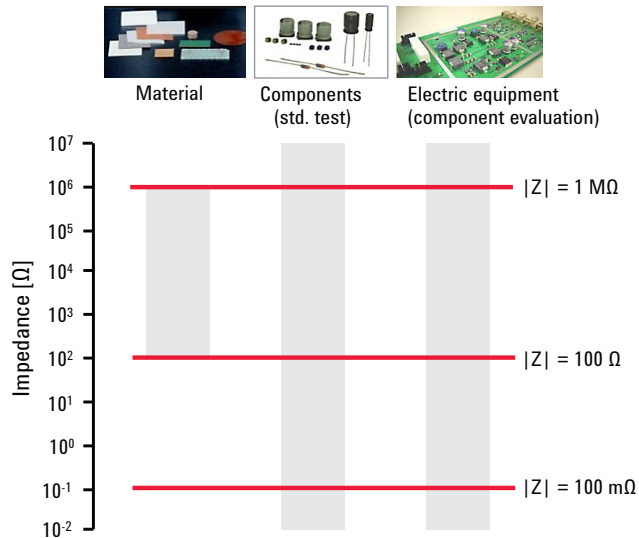


	Keysight E4980AL		GW LCR-8101G	
Frequency range	20 Hz to 1 MHz (Option 102)	✓	20 Hz to 1 MHz	✓
Test signal level	2 Vrms	✓	2 Vrms	✓
Test signal level monitor	Yes	✓	Yes	✓
ALC	Yes	✓	No	✗
Basic accuracy (freq. range)	0.05% (100 Hz to 1 MHz)	✓	0.1% (20 Hz to 100 kHz)	✗
Measurement speed for basic accuracy	118 msec (med. at 1 MHz)	✓	600 msec (slow at 100 kHz)	✗
Measurement accuracy for high/med/low Impedance	See next page	✓	See next page	✗
DC bias signal level	1.5 V, 2 V	✓	No	✗
DCR measurement	Yes	✓	Yes	✓
Compensation	Open/Short/Load	✓	Open/Short	✗
Cable length correction	1/2/4 m	✓	No	✗
List sweep	Test frequency, test signal voltage/current (201 points)	✓	Test frequency, test signal voltage (AC or DC) (30 points)	✗
Comparator BIN sort	Yes	✓	No	✗
USB/LAN interface	Yes	✓	No	✗
Test accessory	Over 20 kinds	✓	7 kinds	✗

Sources: E4980A/E4980AL Data Sheet (Published in December 2014, 5989-4435EN)

LCR-8000G Series User Manual (Published in April 2011, GW INSTRUMENT PART NO. 82CR-81010MD1)

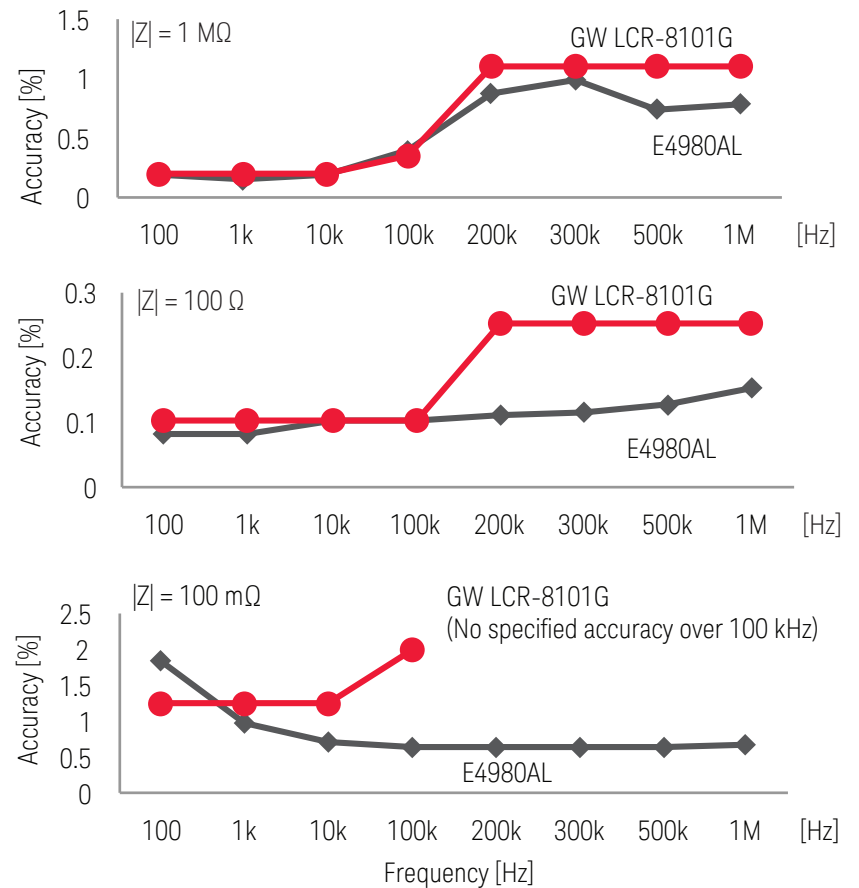
Typical Impedance Range by DUT Category



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

Impedance Measurement Accuracy over Test Frequency



Sources: E4980A/E4980AL Data Sheet 5989-4435EN, LCR-8000 Series User Manual 82CR-81010MD1

Measurement condition:

Test signal level: 1Vrms, cable length: 0 m, measurement speed: E4980AL med., LCR-8101G slow

www.keysight.com/find/E4980AL