

## Competitive Comparison

# Keysight E4980AL Precision LCR Meter versus IET 1920 LCR Meter

### Keysight E4980AL



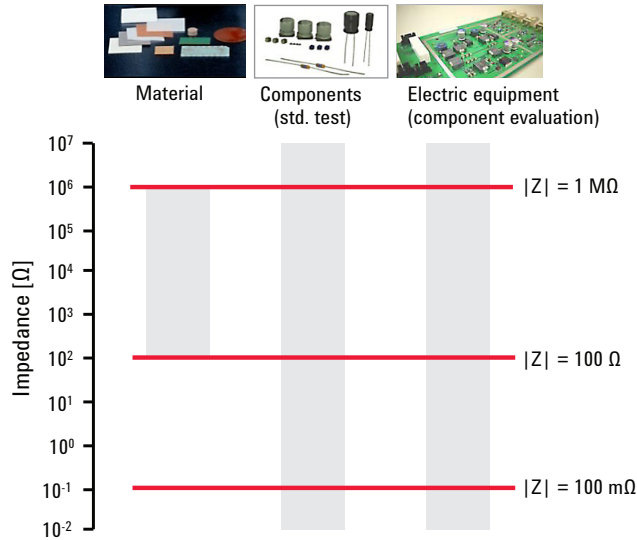
- Combination of accuracy, speed and versatility
- Wide variety of accessories



	Keysight E4980AL		IET 1920	
Frequency range	20 Hz to 1 MHz (Option 102)	✓	20 Hz to 1 MHz	✓
Test signal level	2 Vrms	✓	1 Vrms	✗
Test signal level monitor	Yes	✓	Yes	✓
ALC	Yes	✓	Yes	✓
Basic accuracy (freq. range)	0.05% (100 Hz to 1 MHz)	✓	0.1% (1 kHz to 10 kHz)	✗
Measurement speed for basic accuracy	118 msec (med. at 1 MHz)	✓	1 sec (high at 10 kHz)	✗
Measurement accuracy for high/med/high/med/low Impedance	See next page	✓	See next page	✗
DC bias signal level	1.5 V, 2 V	✗	0 to 2 V	✓
DCR measurement	Yes	✓	Yes	✓
Compensation	Open/Short/Load	✓	Open/Short/Load	✓
Cable length correction	1/2/4 m	✓	1/2 m	✗
List sweep	Test frequency, test signal voltage/current (201 points)	✓	No	✗
Comparator BIN sort	Yes	✓	Yes	✓
USB/LAN interface	Yes	✓	No	✗
Test accessory	Over 20 kinds	✓	6 kinds	✗

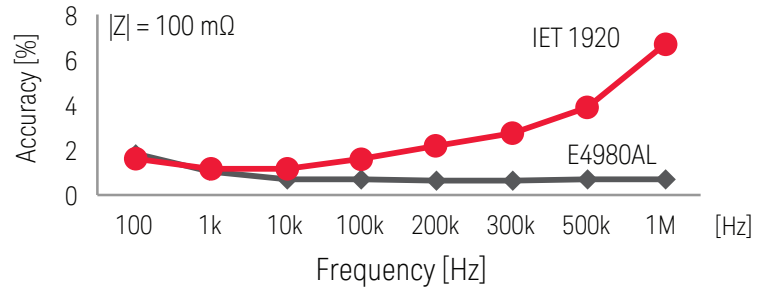
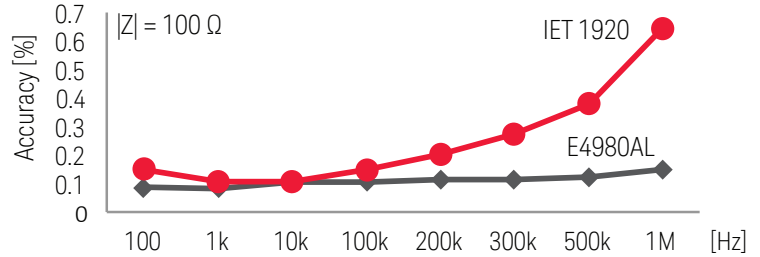
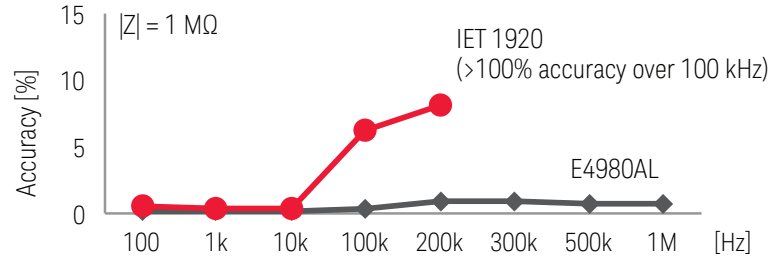
Sources: E4980A/E4980AL Data Sheet (Published in December 2014, 5989-4435EN)  
1920 Precision LCR Meter User and Service Manual (1920 im/October 2012)

## 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, 1920 Precision LCR Meter User and Service Manual

**Measurement condition:**

Test signal level: 1Vrms, cable length: 0 m, measurement speed: E4980AL med., IET 1920 high

[www.keysight.com/find/E4980AL](http://www.keysight.com/find/E4980AL)