



# R&S®LCX100

## versus Keysight E4980AL-032



### What sets this LCR meter apart?

- ▶ Fast, accurate and versatile
- ▶ Upgradeable frequency range
- ▶ Test signals for all requirements
- ▶ DC bias
- ▶ Data logging function
- ▶ High-resolution touchscreen
- ▶ Versatile test fixtures

Your benefit	Features
Versatile functionality, all frequently used measurements supported	▶ The R&S®LCX performs the full range of measurements required to characterize resistors, capacitors and inductors
DC measurements and wide test signal frequency range	▶ The R&S®LCX100 LCR meter covers the frequency range from 4 Hz to 300 kHz
Easy to use	▶ Modern and intuitive operation thanks to a large capacitive touchscreen ▶ Frequently used functions are directly accessible via the front panel keys

Parameter	R&S®LCX100	Keysight E4980AL-032
Test signal frequency	DC, 4 Hz to 300 kHz	DC, 20 Hz to 300 kHz
Test signal voltage (RMS)	10 mV to 10 V	0 V to 2 V
Test signal current	1 mA to 200 mA	0 mA to 20 mA
Bias voltage (internal)	0 V to 10 V	0 V/1.5 V/2 V
Bias current (internal)	0 mA to 200 mA	not specified
Ext. bias voltage input	0 V to 40 V	not available
Source impedance	100 Ω, 10 Ω	100 Ω
Measurement range	100 mΩ to 100 MΩ	10 mΩ to 100 MΩ
Basic measurement accuracy (impedance)	±0.05 %	±0.05 %
Open/short/load compensation	yes	yes
Cable extension length	1 m	1 m/2 m/4 m
Special functions	graphical chart/list sweep	list sweep
Transformer measurements	4 Hz to 100 kHz	not available
Remote control interfaces	USB, LAN, GPIB (option)	USB, LAN, GPIB



## Touchscreen functionality and display

### High-resolution touchscreen with virtual menus and special functions



#### R&S®LCX100

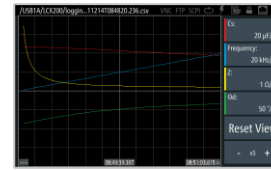
- ▶ The capacitive touchscreen is the central operating element of the R&S®LCX100
- ▶ Virtual keyboards, menus and special functions accessed through icons provide a user-friendly experience



#### Keysight E4980AL-032

- ▶ The Keysight E4980AL-032 LCR meter does not have a touchscreen and is operated solely with keys

### Graphical representation of measurements



#### R&S®LCX100

- ▶ The R&S®LCX100 has a large high-resolution screen that can display a wide variety of additional information such as settings and statistics.
- ▶ Measurements can be displayed as graphs; up to four measurement functions can be selected and plotted versus time. Minimum and maximum values can also be marked.

TYPE	SEQ	FREQ [Hz]	C [F]	L [H]	QIP
109	119.1 k	999,442 f	2,82263 m		
152	119.2 k	999,434 f	2,86183 m		
193	119.3 k	999,436 f	2,84343 m		
198	119.4 k	999,435 f	2,81929 m		
158	119.5 k	999,497 f	2,82726 m		
196	119.6 k	999,466 f	2,83342 m		
197	119.7 k	999,477 f	2,83178 m		
198	119.8 k	999,496 f	2,83966 m		
199	119.9 k	999,488 f	2,84773 m		
200	120 k	999,457 f	2,82296 m		

#### Keysight E4980AL-032

- ▶ The Keysight E4980AL series has a 320 × 240 pixel, RGB color LCD display without graphical functionality

## External bias functions



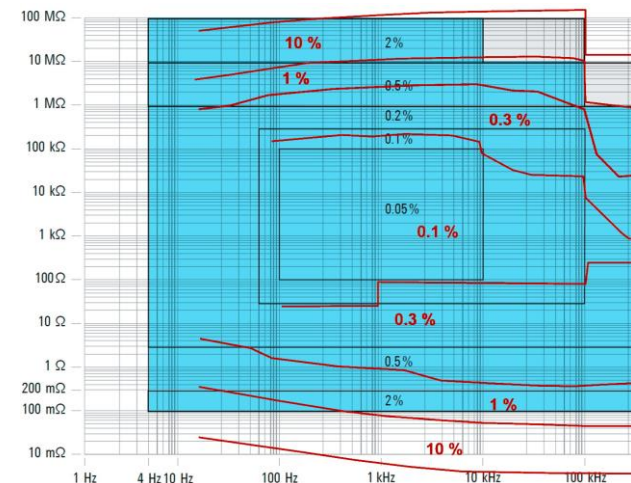
#### R&S®LCX100

- ▶ As standard, the R&S®LCX100 generates internal DC bias voltages of up to 10 V
- ▶ The R&S®LCX-K108 option extends the range of applications
- ▶ With the option, voltages of up to 40 V, e.g. from an external power supply unit, can be applied at the external bias ports on the rear of the LCR meter
- ▶ The option allows the internal bias source to be operated in current regulation mode with an adjustable current of up to 200 mA

#### Keysight E4980AL-032

- ▶ No external bias function

## Accuracy - The R&S®LCX100 has a lower error margin than the Keysight E4980AL-032



R&S®LCX100

Keysight E4980AL-032