



# R&S®LCX200 (with R&S®LCX-K210 frequency upgrade) versus Keysight E4980A



## 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®LCX200 has an upper frequency limit of 500 kHz and can be extended to 1 MHz or 10 MHz using software options if required
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®LCX200 with R&S®LCX-K210	Keysight E4980A with option 001
Test signal frequency	DC, 4 Hz to 10 MHz	DC, 20 Hz to 2 MHz
Test signal voltage (RMS)	10 mV to 10 V	0 V to 20 V
Test signal current	1 mA to 200 mA	0 mA to 100 mA
Bias voltage (internal)	0 V to 10 V	-40 V to +40 V
Bias current (internal)	0 mA to 200 mA	-100 mA to +100 mA
Ext. bias voltage input	0 V to 40 V	internal bias
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®LCX200

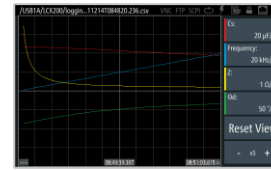
- ▶ The capacitive touchscreen is the central operating element of the R&S®LCX200
- ▶ Virtual keyboards, menus and special functions accessed through icons provide a user-friendly experience



#### Keysight E4980A

- ▶ The Keysight E4980A LCR meter does not have a touchscreen and is operated solely with keys

### Graphical representation of measurements



#### R&S®LCX200

- ▶ The R&S®LCX200 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.

FREQ	SEQ	Cp[F]	L[-]	QIP
119.1 k	999,442 f	2.82263 m		
119.2 k	999,434 f	2.86183 m		
119.3 k	999,426 f	2.84348 m		
119.4 k	999,418 f	2.81329 m		
119.5 k	999,409 f	2.82726 m		
119.6 k	999,406 f	2.83242 m		
119.7 k	999,417 f	2.81718 m		
119.8 k	999,406 f	2.85966 m		
119.9 k	999,408 f	2.84773 m		
120 k	999,407 f	2.82296 m		

#### Keysight E4980A

- ▶ The Keysight E4980A series has a 320 × 240 pixel, RGB color LCD display without graphical functionality

## External bias functions



#### R&S®LCX200

- ▶ As standard, the R&S®LCX200 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 E4980A

- ▶ No external bias function, but the internal bias can optionally be expanded to  $\pm 40$  V and  $\pm 100$  mA

## Accuracy - The R&S®LCX200 has a lower error margin than the Keysight E4980A

