

# R&S®LCX LCR METERS

## The top class in component testing

The perfect choice for

Component R&D

Component production

Service and testing

Education



### 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

Key specifications	
Test frequencies	DC, 4 Hz to 300 kHz (500 kHz, 1 MHz, 10 MHz)
Basic measurement accuracy (impedance)	±0.05 %
Measurement functions	L, C, R, Z, X, Y, G, B, D, Q, $\theta$ , M, N, Rdc
DC bias voltage (internal)	0 V to +10 V
DC bias current (internal)	0 mA to 200 mA
External DC bias voltage, input	0 V to +40 V

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 test signal frequencies of up to 10 MHz	▶ The R&S®LCX100 LCR meter covers the frequency range from 4 Hz to 300 kHz ▶ 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

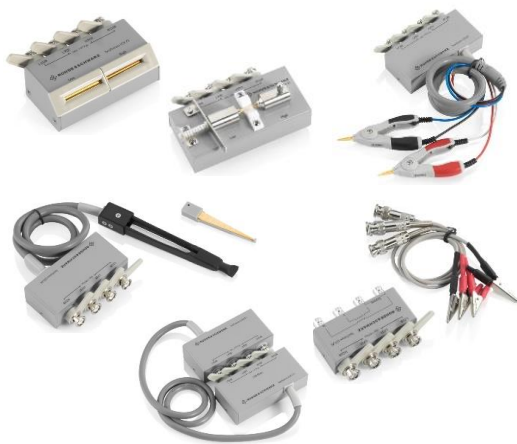


## Display and usability



Up to four measurement parameters can be shown on the display at the same time with additional information

## Test fixtures for a wide range of applications



LCR meters from Rohde & Schwarz can perform measurements on a wide range of components. Test fixtures are available that match the shape of the component.

## List of measurement functions

<b>Cp</b>	Capacitance value measured with parallel equivalent circuit model
<b>Cs</b>	Capacitance value measured with series equivalent circuit model
<b>Lp</b>	Inductance value measured with parallel equivalent circuit model
<b>Ls</b>	Inductance value measured with series equivalent circuit model
<b>D</b>	Dissipation factor
<b>Q</b>	Quality factor (inverse of D)
<b>G</b>	Equivalent parallel conductance measured with parallel equivalent circuit model
<b>Rp</b>	Equivalent parallel resistance measured with parallel equivalent circuit model
<b>Rs</b>	Equivalent series resistance measured with series equivalent circuit model
<b>Rdc</b>	Direct current resistance
<b>R</b>	Resistance
<b>X</b>	Reactance
<b>Z</b>	Impedance
<b>Y</b>	Admittance
<b>θd</b>	Phase angle of impedance/admittance (degrees)
<b>θr</b>	Phase angle of impedance/admittance (radians)
<b>B</b>	Susceptance
<b>M</b>	Mutual inductance
<b>N</b>	Turns ratio

## Options for advanced applications

### R&S®LCX-K106 advanced analysis functions

- For dynamic impedance measurements that sweep the frequency, voltage or current of the test signal or bias signal

### R&S®LCX-K107 digital I/O ports and binning function

- Includes trigger input and eight data lines for binning

### R&S®LCX-K108 extended bias functions

- External bias voltage of up to 40 V and internal bias source in current regulation mode of up to 200 mA

### R&S®LCX-K201/-K210 frequency upgrade

- Upgrade to 1 MHz/10 MHz for the R&S®LCX200

## Ordering information

Description	Item
LCR meter, 300 kHz, base unit	R&S®LCX100
LCR meter, 500 kHz, base unit	R&S®LCX200
Advanced analysis functions	R&S®LCX-K106
Digital I/O ports and binning function	R&S®LCX-K107
Extended bias functions	R&S®LCX-K108
Frequency upgrade to 1 MHz for R&S®LCX200	R&S®LCX-K201
Frequency upgrade to 10 MHz for R&S®LCX200	R&S®LCX-K210
IEEE-488 (GPIB) interface for R&S®NGP/LCX	R&S®NG-B105
Test fixture for axial/radial lead type devices	R&S®LCX-Z1
Kelvin clip lead	R&S®LCX-Z2
Test fixture for SMD components	R&S®LCX-Z3
Test tweezers for SMD components	R&S®LCX-Z4
Transformer test cables	R&S®LCX-Z5
BNC extension, length: 1 m	R&S®LCX-Z11
19" rack adapter, 2 HU	R&S®ZZA-GE23



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