

## LCR Meters 4310 4320 4350 43100



- Measurements from 20Hz to 1MHz (43100)
- 0.1% basic accuracy
- <20ms measurement time
- Parameters Z  $\theta$  Rac C D L Q B G X Y Rdc
- Display four parameters and two tests at once
- Drive level from 10mV to 2Vrms
- RS232, GPIB, USB & LAN Interfaces
- +2V internal /  $\pm 40$ Vdc external bias
- Small size & light weight

The 4300 series is the entry level range of Wayne Kerr LCR Meters. They provide a wide range of features and offer high performance and very competitive prices.

### Frequency

Model	Frequency Range
4310	20Hz to 100kHz
4320	20Hz to 200kHz
4350	20Hz to 500kHz
43100	20Hz to 1MHz

### Frequency Step Size

Frequency	Step Size
20Hz to 1kHz	5Hz
1kHz to 10kHz	50Hz
10kHz to 100kHz	500Hz
100kHz to 1MHz	5kHz

### AC Drive Level

Voltage (into open circuit): 10mV to 2Vrms  
 Voltage step size: 10mV (200 steps)  
 Signal source impedance: 100  $\Omega$

### DC Drive Level

1V or 2V

### DC Bias Voltage

Internal: 2V  
 External:  $\pm 40$ V

### Basic Accuracy

AC: 0.1%  
 DC: 0.2%

Varies with speed, frequency, drive level and impedance of the device under test.

### Measurement Parameters

Impedance (Z)	Phase Angle ( $\theta$ )
Capacitance (C)	Dissipation Factor / $\tan \delta$ (D)
Inductance (L)	Quality Factor (Q)
AC Resistance (R)	Reactance (X)
DC Resistance (Rdc)	Admittance (Y)
Susceptance (B)	Conductance (G)

### Series/Parallel Equivalent Circuit

Any combination of AC parameters

### Range of Readings

Parameter	Display Measurement Range
Z, R, X	10.0000 $\mu\Omega$ to >100.000G $\Omega$
Y, B, G	1.00000pS to >10.0000kS
L	100.000pH to >100.000MH
C	10.0000fF to >1.00000F
D, Q	0.00001 to 99999.9
A	-180.000° to 180.000°
Rdc	0.1000m $\Omega$ to >10.000G $\Omega$



## Measurement Speeds

Four selectable measurement speeds for all functions. Over 50 measurements per second, depending on frequency and set up conditions.

## Test Mode

One test or two tests can be triggered automatically. Measurement parameters, frequency, and drive level can be changed between Test 1 and Test 2.

## Test Limits

Limits can be set for all measurements in one or two test mode. Results of limit checks are displayed on screen. PASS/FAIL signal is available on Scaleizer port on rear panel.

## Save and Recall

Up to 20 measurement set ups can be saved with user-defined names and later recalled.

## External Control

GPIO, USB, LAN and RS232.

## Binning (Option)

User programmable PASS and FAIL bins indicated by signals available on the rear panel. /B1 provides non-isolated signals. /B2 provides isolated signals.

## Scaleizer (Option)

Provides relay controlled signals available on the rear panel indicating PASS/FAIL decisions based on user-defined limits. 2 versions available (/S1 and /S2).

## Safety

Complies with the requirements of EN61010-1.

## EMC

Complies with EN61326 for emissions and immunity.

## AC Power Input

90VAC to 264VAC (Autoranging); 47Hz to 63Hz

## Display

3.8" 1/4 VGA (320 x 240) Black & White

## Remote Control

RS232, GPIO, USB and LAN

## Mechanical

Height 104mm (4.1") Width 322mm (12.7")  
Depth 285mm (11.1") Weight 3kg (6.6lb)

## Temperature Range

Operating: 0°C to 40°C  
Full Accuracy: 23°C ±5°C  
Storage: -40°C to +70°C

### Order Codes

Model	Part No.
4310 (100kHz)	1J4310R
4320 (200kHz)	1J4320R
4350 (500kHz)	1J4350R
43100 (1MHz)	1J43100R

### Options

Description	Code
Scaleizer (S1 type)	/S1
Scaleizer (S2 type)	/S2
Bin handler (non-isolated)	/B1
Bin handler (isolated 24V)	/B2

### Recommended Accessories

Description	Part No.
4-terminal component fixture	1EV1006
SMD tweezers	1EVA40120

All units are supplied with User Manual, Kelvin clips and AC power cable as standard.

Only one option may be fitted. To specify an option add the option code to the instrument part number.

Accessories for the 4300 series are being introduced continuously. Consult our website or your local distributor for all accessories available.

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Wayne Kerr's policy is one of continuous development and consequently the product may vary in detail from the description and specification in this publication.