

## LCR-1000 Series Specifications

All specification apply at  $23 \pm 5 \text{ }^\circ\text{C}$ , unless otherwise stated, and 30 minutes after the instrument has been turned on



**LCR-1100**



**LCR-1010**

SPECIFICATION		
	LCR-1100	LCR-1010
<b>TEST FREQUENCY</b>		
	50Hz/100Hz/120Hz/1k/2k/10k/50k/100kHz selectable	50Hz/100Hz/120Hz/1k/2k/10kHz Selectable
<b>FULL SCALE</b>		
Main Display	50,000 counts	
Sub Display	50,000 counts	
<b>CAPACITANCE ( C ) and DISSIPATION ( D )</b>		
C Display Range	1pF ~ 50mF depends on the selected test frequency	
C Best Accuracy	$\pm(0.2\% \text{ rdg} + 2 \text{ counts}) \sim \pm(3.0\% \text{ rdg} + 10 \text{ counts})$	
C Resolution	0.001pF ~ 0.001mF depends on selected range	
D Accuracy (De)	0.002 ~ 0.03 depends on the selected test frequency & range	
<b>INDUCTANCE ( L ) and QUALITY FACTOR ( Q )</b>		
L Display Range	0.5 $\mu$ H ~ 1000H depends on the selected test frequency	
L Best Accuracy	$\pm(0.2\% \text{ rdg} + 2 \text{ counts}) \sim \pm(2.5\% \text{ rdg} + 10 \text{ counts})$	
L Resolution	0.001 $\mu$ H ~ 0.1H depends on selected range	
Q Accuracy (Qe)	0.002 ~ 0.08 depends on the selected test frequency & range	
<b>IMPEDANCE ( Z ) and PHASE ANGLE ( <math>\theta</math> )</b>		
Z Display Range	0.05 $\Omega$ ~ 10M $\Omega$ depends on the selected test frequency	
Z Best Accuracy	$\pm(0.2\% \text{ rdg} + 2 \text{ counts}) \sim \pm(3.0\% \text{ rdg} + 20 \text{ counts})$	
Z Resolution	0.0001 $\Omega$ ~ 0.001M $\Omega$ depends on selected range	
$\theta$ Accuracy ( $\theta_e$ )	0.2 $^\circ$ ~ 2 $^\circ$ depends on the selected test frequency & range	
<b>ESR and <math>\phi</math></b>		
	ESR is equal to the series equivalent resistance (Rs)	
Accuracy Formula	$R_{se} = \pm X_x * \phi_e$ ; $X_x = 2\pi f L_x$ or $1/2\pi f C_x$ ; $\phi_e = \theta_e * \pi/180$	
	Parallel equivalent resistance	
Accuracy Formula	$R_{pe} = \pm R_p * \phi_e / D_e \mp \phi_e$	

<b>DC RESISTANCE</b>	
Display Range	0.05Ω ~ 10MΩ
Best Accuracy	±(0.2% rdg+ 2 counts) ~ ±(3.0% rdg + 5 counts)
Resolution	0.0001Ω ~ 0.001MΩ depends on selected range
<b>MEASUREMENT CIRCUIT</b>	
	Parallel or Series selectable
<b>AUTO LCZ MODE</b>	
	Automatically identifies and measures the DUT when the meter is switch on
<b>SORTING MODE</b>	
	±1%,±5%,±10%,±20%, Input%
<b>OTHER FUNCTIONS</b>	
	Auto range, Backlight, Data hold, Zero, Auto power off
<b>DISPLAY</b>	
	2.8 Color LCD display (touch operation available)
<b>INTERFACE</b>	
	USB (type C)
<b>POWER SOURCE</b>	
	Rechargeable lithium battery(8.4V)
<b>DIMENSIONS &amp; WEIGHT</b>	
	90(W) × 195(H) × 41(D) mm, Approx. 380g