

LCR-821 (12Hz~200kHz) LCR-819/829 (12Hz~100kHz) LCR-817/827 (12Hz~10kHz) LCR-816/826(100Hz~2kHz) The LCR-800 Series are high-end digital LCR meters for component/material measurements, applicable to various R&D activities and assembly lines. The large 240 x 128 dot matrix LCD display provides ampleroom for two measurement items and setup parameters allowing you to grasp measurement results quickly. All test modes are able to measure supplementary factors such as, R/Q, C/D, C/R, and L/Q. The LCR-821 also contains precise resistance measurements as a combination of absolute value and phase angle. 100 sets of measurement setup memory allow sharing a single unit among multiple testing conditions or sites. For a better viewing experience with a standard PC monitor, proprietary Windows based software is accessible via the RS-232C terminal. The handler interface is also a standard feature for LCR-826/827/829.









#### **FEATURES**

\* Test Frequency:

12Hz~200kHz (LCR-821) 12Hz~100kHz (LCR-819/829) 12Hz~10kHz (LCR-817/827) 100Hz~2kHz (LCR-816/826)

- \* 0.05~0.1% Measurement Accuracy
- \* 100 Sets Memory for Save/Recall of Settings
- \* R/Q, C/D, C/R, L/Q Test Modes for all Models;  $Z/\theta$ , L/R for LCR-821 Only
- \* Absolute Value,  $\Delta$  Value, and  $\Delta$  % Measurement Display
- \* 240 x 128 dot Matrix LCD Display
- \* Displays Condition and Test Result Simultaneously
- \* Interface : RS-232C (LCR-821/819/817/816) Handler (LCR-829/827/826)

SPECIFICATIONS						
TEST FREQUENCY						
	12Hz ~ 200kHz (504 steps) for LCR-821					
	12Hz ~ 100kHz(503 steps) for LCR-819/829					
	12Hz ~ 10kHz (489 steps) for LCR-817/827					
	100Hz ~2kHz (245 steps) for LCR-816/826					
BASIC ACCURACY						
	0.05% for basic accuracy for LCR-821/819/817					
	0.1% for basic accuracy for LCR-829/827/826/816					
TEST SPEED						
68ms for LCR-821/819/817/816, 34ms for LCR-829/827/826						
TEST SIGNAL LEVELS						
	5mV ~ 1.275Vrms (5mV/step) for LCR-821/819/829/817/827					
	0.1V ~ 1.275Vrms ( 5mV/step )for LCR-816/826					
DC BIAS						
Internal	2V					
External	0 ~ 35V for LCR-821; 0 ~ 30V for LCR-819/829/817/827/816/826					
DISPLAY RANGE						
Resistance	<b>R</b> $0.00001\Omega \sim 999999k\Omega$					
Capacitance	C 0.00001pF ~ 99999 µF					
Inductance	L 0.00001mH ~ 99999H					
Quality Factor	Q 0.0001 ~ 9999					
Dissipation Factor	D 0.0001 ~ 9999					
Impedance	$ z  = 0.00001\Omega \sim 999999 \text{ for LCR-821}$					
Phase Angle ( Degree )	$\theta$ -180.00° ~ 180.00° for LCR-821					
TEST MODE						
	R/Q , C/D, C/R, L/Q					
	$Z/\Theta$ , L/R for LCR-821 only					
EQUIVALENT CIRCUIT	1011 1					
`	Parallel or series selectable					
MEMORY	Talance of Screen Sciences					
	100 memory blocks total					
AVERAGE	Too memory process total					
AVERAGE	1 to 255 times					
TEST SPEED MODE	1 to 255 times					
TEST SPEED MODE						
	SLOW, MEDIUM and FAST					
DISPLAY MODE	1					
	Value, △ , △ %					
DISPLAY						
	240x128 dot matrix C.C.F.L back light LCD					
INTERFACE						
	Standard Interface : RS-232C for LCR-821					
	Standard Interface : Handler Interface for LCR-829/827/826					
	Optional: RS-232C Interface for LCR-819/817/816 (factory installed)					
	(Including LCR-Viewer Software)					
POWER SOURCE						
Line Voltage Range	AC 100V ~ 240V , 47 ~ 63/400Hz					
DIMENSIONS & WEIGHT	·					
	322 (W) x 149 (H) x 433 (D)mm, Approx. 5.5kg					
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LCR-821

LCR-800 SERIES SELECTION GUIDE										
MODEL		LCR-821	LCR-819	LCR-829	LCR-817	LCR-827	LCR-816	LCR-826		
Display		240 x 128 dot matrix CCFL back light LCD								
Test Frequency		12Hz~200kHz (504 steps)	12Hz~100kHz (503 steps)		12Hz~10kHz (489 steps)		100Hz~2kHz (245 steps)			
Basic Ac	curacy	0.05% 0.05% 0.1% 0.05%		0.1%	0.1%					
Test Mode		R/Q, C/D, C/R L/Q, Z/θ , L/R	R/Q, C/D, C/R,L/Q		R/Q, C/D, C/R,L/Q		R/Q, C/D, C/R,L/Q			
Memory	,	100 memory blocks totally								
DC BIAS	Internal	2V	2V		2V		2V			
	External	0 ~35V	0 ~30V		0 ~30V		0 ~30V			
Interface	RS-232	Std.	Opt.		Opt.		Opt.			
	Handler			Std.		Std.		Std.		

### ORDERING INFORMATION

LCR-821 200kHz High Precision LCR Meter with RS-232 Interface

LCR-819 100kHz High Precision LCR Meter

LCR-829 100kHz High Precision LCR Meter with Handler Interface

LCR-817 10kHz High Precision LCR Meter

LCR-827 10kHz High Precision LCR Meter with Handler Interface

LCR-816 2kHz High Precision LCR Meter

LCR-826 2kHz High Precision LCR Meter with Handler Interface

ACCESSORIES :

User manual x 1, Power cord x1, LCR-06A x 1 OPTION

Opt.01 RS-232C Interface (Factory Installed)

#### **OPTIONAL ACCESSORIES**

LCR-05 Test Fixture for Axial & Radial Leaded Components

LCR-06A Kelvin Clip Test Lead

LCR-07 Test Fixture, Two-Wire with Alligator Clips

LCR-08 Test Fixture (Tweezers) for SMD/Chip Components

Test Fixture for SMD/Chip Components LCR-09 I CR-13 Test Fixture for SMD/Chip Components

GRA-402 Rack Adapter Panel, Rack Mounting (19", 4U)

GTL-232 RS232C Cable, 9-pin Female to 9-pin, null Modem for Computer

GTC-001 Instrument Cart

GTC-002 Instrument Cart

FREE DOWNLOAD PC Software LCR-Viewer

### LCR-821 Rear Panel



## LCR-829 Rear Panel



### LCR-819 Rear Panel



LCR-06A



Description: Kelvin clip test leads. Frequency: DC to 1MHz Max. Voltage: +/- 35V

# LCR-05

LCR-08 Patent:188540



Description: Test fixture for measurement of both axial and vertical lead components Frequency: DC to 1MHz Max. Voltage: +/- 35V

LCR-07



Description: Test leads for conventional component measurement. It is especially useful for high impedance measurement. (With alligator clips) Two-wire measurement; apply to low C or high R. Frequency: DC to 1MHz Max. Voltage: +/- 35V

Description: SMD / clip tweezers Frequency: DC to 1MHz Max. Voltage: +/- 35V

LCR-09 Patent:186171



Description: SMD / chip test fixture Frequency: DC to 1MHz Max. Voltage: +/- 35V Size range from 0603 to 1812

LCR-13 Patent:186171



Description: SMD / chip test fixture Frequency: DC to 1MHz Max. Voltage: +/- 35V Size range from 0201 to 0805