Aplab
GLOBAL

4100 / 4200

High Precision LCR Meter



Aplab High Precision LCR Meter Models 4100 and 4200 are high class digital LCR meter for applications in component measurements, in R&D and in production activities. A large 240 x 120 dot matrix LCD with back light is used for better contrast and visibility. Measurements are always accompanied with supplement factors such as R/Q, C/D, C/R & L/Q. 100 sets of measurement set up memory allow sharing of multiple testing conditions. Windows based proprietary software is provided optionally for PC communication through RS232C Interface.

FEATURES

- Test Frequency : 12Hz ~ 200KHz.
- Continuously Variable Frequencies.
- 0.05% High Measurement Accuracy.
- 100 Sets Memory for Save / Recall of Settings.
- R/Q, C/D, C/R, L/Q Test Modes.
- Absolute value, ΔValue and Δ%Measurement Display.
- 240 x 128 dot Matrix LCD Display.
- Simultaneously Display Test Condition and Test Result
- Optional Interface : RS-232C (Including LCR-Viewer Software.

Technical Specifications

MODELS	4100	4200
TEST FREQUENCY	12Hz to100kHz (503 steps).	12Hz to 200KHz (504 steps).
BASIC ACCURACY		
R, L, C, Z	0.05% (Basic).	0.05% (Basic).
D, Q	0.0005 (Basic).	0.0005 (Basic).
Ø	0.03º.	0.03º.
TEST SPEEDS	Slow 896 msec, Medium 286 msec, Fast 135 msec.	
TEST SIGNAL LEVELS	5mV to 1.275V at 200KHz > 100mV.	
DC BIAS	Int. 2V, Ext. 30V DC, <200mA.	
MEASUREMENT PARAMETERS	Ls/Lp, Cs/Cp, Rs/Rp, D, Q, ESR, EPR, Z, Ø.	
MEASUREMENT MODES	R/Q, C/D, C/R, L/Q, Z/Ø, L/R.	
DISPLAY RANGE		
PRIMARY DISPLAY		
Inductance (L)	0.00001 mH - 99999 H.	
Capacitance (C)	0.00001 pF - 99995 µF.	
Resistance (R)	0.00001 Ω - 99999 KΩ.	
Absolute Impedance (Z)	0.00001 Ω - 99999 KΩ.	
SECONDARY DISPLAY (4 Digits)		
Dissipation Factor (D) (with C)	0.0001 - 9999.	
Quality Factor (Q) (with L or R)	0.0001 - 9999.	
Ø (Phase Angle of Impedance)	180ºC to ±180ºC.	
ESR	0.0001Ω - 9999KΩ.	
EPR	0.0001Ω - 9999KΩ.	
Interface Standard	RS232C.	
D (in ppm) (with C)	1 ppm - 9999 ppm.	
Q (in ppm) (with L or R)	1 ppm - 9999 ppm.	
MEASUREMENT DISPLAY	Value, Δ% & Δ.	
Δ%	0.00001% - 99999%.	
EQUIVALENT CIRCUIT		
L, C, R	Series or Parallel.	
Z/Ø	--	Parallel.
MEASUREMENT MODES	Auto / Manual.	
AVERAGE	1 - 255.	
MEMORY	100 memory blocks totally.	
INTERFACE STANDARD	RS232C.	
LCD MONITOR	240 X 128 dot matrix CCFL back light with adjustable contrast.	
BATTERY (For System Memory & Backup)	3V, BR-2/3 A type Lithium.	
OPERATING CONDITIONS	10ºC - 50ºC <85% RH. Storage 20ºC - 60ºC.	
POWER REQUIREMENTS	100 - 240 V AC, 50Hz - 60Hz, 45W max. 250V, 3A (SLO-BLOW).	
DIMENSIONS	330 (W) x 149 (H) x 437 (D) mm.	
WEIGHT	5.5 Kg.	
ACCESSORIES	1. User Manual. 2. Power Cord. 3. Test Lead - 4 Wire. 4. RS232 Cable (Optional). 5. Software - LCR Viewer (Optional).	