

LCR Meter

Model No.

11022/11025



LCR Meter Model 11022/11025

KEY FEATURES

- Transformer test parameters (11025), Turns Ratio, DCR, Mutual Inductance
- 50Hz, 60Hz, 100Hz, 120Hz, 1kHz, 10kHz, 20kHz, 40kHz, 50kHz, 100kHz test frequencies
- 0.1% basic accuracy
- 21ms measurement time in all test frequency range ($\geq 100\text{Hz}$)
- Agilent 4263B LCR Meter compatible IEEE-488 commands
- 4 different output resistance modes selectable for non-linear inductor and capacitor measuring. Measured results are compatible with Chroma (Zentech) and other well-known LCR meters
- High resolution in low impedance ($0.01\text{m}\Omega$) and high accuracy 0.3% till $100\text{m}\Omega$ range are the right tool for low inductance, large capacitance, and low impedance component measuring
- Adjustable DC bias current up to 200mA (constant 25Ω), are the right tool for inductance inspection of telecom transformers and small power chokes under DC bias current (11025)
- 1320 Bias Current Source directly control capability
- 240 x 64 dot matrix LCD display, easy operation
- $0.01\text{m}\Omega \sim 99.99\text{M}\Omega$ wide measurement range with 4 1/2 digits resolution
- Dual frequency function (11022 option) for electrolytic capacitor, film capacitor, MLCC etc. in QC, QA and automatic production dual frequency applications
- BIAS comparator function
- Comparator function and 8/99 bin-sorting function
- Alarm for pass/fail judge result
- 50 internal instrument setups memory
- Handler interface trigger edge (rising/falling) programmable
- Test signal level monitor function
- Standard GPIB (IEEE-488) and handler interface
- Open/ short zeroing, load correction
- LabView® Driver

The Chroma 11022 and 11025 LCR Meters are the measurement instruments for passive components. They are applicable to the automatic manufacturers for passive components in material inspection. With the features of 21ms high-speed measurement and 0.1% accuracy, 11022 LCR Meter fulfills the requirements for fast production. Its functions of 8-level counting, 8/99 Bin-sorting, pass/fail judgment, and 50 sets of internal save and recall settings totally meet the production line requirements for easy operation.

The four impedance output modes can measure the results with the LCR Meters of other brands to get a common measurement standard. Chroma 11025 LCR Meter is compatible with HP 4263B LCR Meter IEEE-488.2 control interface and has three impedance output modes for selection. The measurement results can also be compared with other brand of LCR Meters. Chroma11022/11025 is the ideal selection for passive components quality assurance and automatic production.



ORDERING INFORMATION

- 11022** : LCR Meter
- 11022** : LCR Meter with dual frequency function
- 11025** : LCR Meter
- A110104** : SMD Test Cable #17
- A110211** : Component Test Fixture
- A110212** : Component Remote Test Fixture
- A110232** : 4 BNC Test Cable with Clip#18
- A110234** : High Frequency Test Cable
- A110236** : 19" Rack Mounting Kit
- A110239** : 4 Terminals SMD Electrical Capacitor Test Box (Patent)
- A110242** : Battery ESR Test Kit
- A110244** : High Capacitance Capacitor Test Fixture
- A110245** : Ring Core Test Fixture
- A113012** : Vacuum Generator for A132574
- A113014** : Vacuum Pump for A132574
- A132574** : Test Fixture for SMD power choke
- A133004** : SMD Test Box
- A133019** : BNC Test Lead, 2M (single side open)
- A165009** : 4 BNC Test Cable with Probe

SPECIFICATIONS

Model	11022	11025
Test Parameter	L, C, R, IZ, Q, D, ESR, X, θ	L, C, R, IZ, Q, D, ESR, X, θ DCR4, M, Turns Ratio, L2, DCR2
Test Signals		
Level	10 mV-1V, step 10 mV; $\pm(10\% + 3\text{mV})$	
Frequency	50Hz, 60Hz, 100Hz, 120Hz, 1kHz, 10kHz, 20kHz, 40kHz, 50kHz, 100kHz; $\pm 0.01\%$	
Output Impedance (Nominal Value)	Constant OFF: Varies as range resistors Constant 107 x : 25Ω Constant 320 x : 100Ω Constant 106x: 2Ω , for $Z \geq 10\Omega$, 100mA (1V setting) for reactive load $\leq 10\Omega$ Constant 102x: 25Ω , for $Z < 1\Omega$, 100Ω for else	
DC Bias Current (Freq. $\geq 1\text{kHz}$)	--	50mA max. for Constant 100Ω 200mA max for Constant 25Ω (AC level $\leq 100\text{mV}$)
Measurement Display Range		
C (Capacitance)	0.001pF ~ 1.9999F	
L, M, L2 (Inductance)	0.001 μH ~ 99.99kH	
Z (Impedance), ESR	0.01m Ω ~ 99.99M Ω	
Q (Quality Factor)	0.0001 ~ 9999	
D (Distortion Factor)	0.0001 ~ 9999	
θ (Phase Angle)	$-180.00^\circ \sim +180.00^\circ$	
Turns Ratio (Np:Ns)	--	0.9~999.99
DCR	--	0.01m Ω ~ 99.99M Ω
Basic Measurement Accuracy *1	$\pm 0.1\%$	
Measurement Time (Fast) *2	21ms	
Interface & I/O		
Interface	handler (50pin) GPIB (IEEE-488.2)	
Output Signal	Bin-sorting & HI/GO/LOW judge	
Comparator	Upper/Lower limits in value	
Bin Sorting	8/99 bin limits in %, ABS	
Trigger Delay	0~9999ms	
Display	240 x 64 dot-matrix LCD display	
Function		
Correction	Open/ Short zeroing, load correction	
Averaging	1~256 programmable	
Cable Length	0m, 1m, 2m, 4m	
Test Sig. Level Monitor	Voltage, Current	
Equivalent Circuit mode	Series, Parallel	
Memory (Store/ Recall)	50 instrument setups	
Trigger	Internal, Manual, External, Bus	
General		
Operation Environment	Temperature : $10^\circ\text{C} \sim 40^\circ\text{C}$ Humidity : $< 90\%$ R.H.	
Power Consumption	65VA max	
Power Requirements	90~125Vac or 190~250Vac 48 Hz~62 Hz	
Dimension (H x W x D)	100 x 320 x 347.25 mm / 3.94 x 12.6 x 13.67 inch	
Weight	5.5 kg / 12.11 lbs	

Note*1 : $23 \pm 5^\circ\text{C}$ after OPEN and SHORT correction. Slow measurement speed. Refer to Operation Manual for detail measurement accuracy descriptions.

Note*2 : Measurement time includes sampling, calculation and judge of primary and secondary test parameter measurement

Solar Cell Test Equipment
Semiconductor/IC Test Equipment
LED Test Equipment
LCD/LCM Test Equipment
Video & Color Test Equipment
Optical Inspection Equipment
Power Supply Test Equipment
Passive Component Test Instruments
Electrical Safety Test Instruments
General Purpose Test Instruments
PXI Instruments & Systems