

LCR Meter

MODEL 11022/11025

Key Features :

- 7 test frequencies :
100/120/1k/10k/20k/50k/100k Hz
- Test signal from 10mV to 1.0V rms programmable
- Internal DC bias current source 200mA maximum
- Measurement basic accuracy 0.1%
- High resolution (0.01mΩ) for low impedance component measurement
- Fast (15mS) measurement time in all frequency range
- Test signal level monitor VM/IM function
- Transformer test parameters measurement capability (11025 only)
- 4 different source impedance modes selectable
- 240 X 64 Graphics LCD display and easy operation
- Built-in comparator and 8 Bin-Sorting function
- Cable length (0m, 1m, 2m, 4m) compensation
- Alarm for PASS/FAIL judge resulted
- 50 Memory locations for storing setup
- Handler interface trigger edge (rising/falling) programmable
- GPIB interface and IEEE 488 commands compatible with Agilent 4263B
- Handler interface and pin out compatible with Agilent 4263B



LCR METER MODEL : 11022/11025

The Chroma 11022 and 11025 LCR Meters are passive component testers that can give you the most cost effective alternative equivalent to the high priced meters. They are designed for the demanding applications in production test, incoming inspection, component design and evaluation. Programmable test signal level settings are from 10mV to 1V in a step of 10mV, and the VM/IM signal level monitor functions allow you to evaluate your devices at the level you specify. Seven test frequencies of 100Hz, 120Hz, 1kHz, 10kHz, 20kHz, 50kHz, and 100kHz, can be used to evaluate passive components and transformers/ LF coils.

The low cost LCR meters on the market have shortcomings when used for low impedance components evaluation such as large capacitance of electrolytic capacitors and low inductance of coils. As the 11022/11025 equipped with high resolution (0.01mΩ) in low impedance and high accuracy (0.3%) till 100mΩ range, it can be used to evaluate low impedance components to meet the measurement requirements.

The 11025 LCR Meter can also measure DC resistance, turn ratio and mutual inductance of transformer. It is suitable for pulse

transformer or LF coil evaluation. Chroma A110207 Transformer Test Fixture used with the 11025, can measure both the primary and the secondary parameters automatically by changing the internal relays of 11025. So there is no need to change the connections required for measuring transformer parameters. Adjustable internal DC bias current source can up to 200mA which is a standard function, is the right tool for inductance inspection of telecom transformers and small power chokes under DC bias current.

The 11022/11025 LCR Meter provides a powerful combination of features designed to maximize the productivity in all testing environments. The measurement speed in the SHORT integration time mode is 15ms. Handler interface and Pin-out are compatible with Agilent 4263B. GPIB Interface and IEEE 488 commands are compatible with Agilent 4263B.

In addition, the 11022/11025 have built in a comparator, 8 bin sorting, trigger delay functions and handler interface trigger function, which make them easy for system integration, and improve the measurement throughput as well as reliability.



Chroma



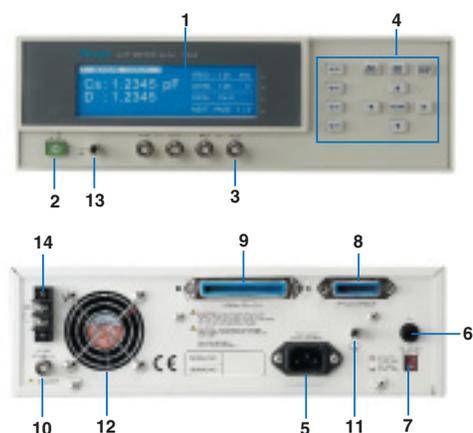
Specification

Model	11022	11025
Test Parameter	L, C, R, IZL, Q, D, ESR, X, θ	L, C, R, IZL, Q, D, ESR, X, θ DCR4, M, Turns Ratio, L2, DCR2
Test Signals	10 mV ~ 1V, step 10 mV; $\pm(10\% + 3\text{ mV})$	
Level	100/25 Ω , 100 Ω , 25 Ω , 10 Ω C.C. (constant current)	
Source Impedance	100Hz, 120Hz, 1kHz, 10kHz, 20kHz, 50kHz, 100kHz; $\pm(0.01\% \pm 0.01\text{Hz})$	
Frequency	50mA max. for Constant 100 Ω 200mA max for Constant 25 Ω (AC level $\leq 100\text{ mV}$)	
DC Bias Current (Freq. $\geq 1\text{kHz}$)	--	
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), D (Distortion Factor)	0.0001 ~ 9999	
θ (Phase Angle)	-180.00 $^\circ$ ~ +180.00 $^\circ$	
Turns Ratio (Np:Ns)	--	0.9 ~ 999.99
DCR	--	0.01m Ω ~ 99.99M Ω
Basic Measurement Accuracy (Note1)	$\pm 0.1\%$	
Measurement Speed	Fast/ Medium/ Slow : 62/ 19/ 3 Measurements/Second	
Interface & I/O		
Interface	GPIB (IEEE 488.2), Handler (50pin)	
Output Signal	Bin-sorting & HI/ GO/ LOW judge	
Comparator	Upper/ Lower limits in value	
Bin Sorting	8 bin limits in %	
Trigger Delay	0 ~ 9999 ms	
Display	240 X 64 graphics LCD display	
Function		
Correction	Open/ Short zeroing	
Averaging	1 ~ 256 programmable	
Cable Length	0m, 1m, 2m, 4m	
Test Signal 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 $^\circ\text{C}$ ~ 40 $^\circ\text{C}$ Humidity : < 90% R.H.	
Power Consumption	65 W max.	
Power Requirements	90 ~ 125V AC or 190 ~ 250V AC	48 ~ 62Hz
Weight	Approx. 5.4 kg	
Dimension (W X H X D)	320 x 115 x 350 mm	

All specifications are subject to change without notice.

*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.

Panel Description



1. LCD Display
2. LINE Switch
3. Measurement Terminals
4. Function Keys
5. Power Code Receptacle
6. LINE Fuse Holder
7. LINE Voltage Selector
8. GPIB Interface
9. Handler Interface
10. External DC Bias Terminal
11. Ground Terminal
12. Fan
13. Ground Terminal
14. DC Bias Trimmer Terminal

Order Information

11022	LCR Meter
11025	LCR Meter
A110001	Test Box #1
A110003	Test Box #3
A110104	SMD Test Cable #17
A110207	Transformer Test Fixture
A133004	SMD Test Box
A133005	Low ESR Test Cable

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