FEATURES

- Consecutive Test Frequency
- Auto level control
- Compact size
- DCR measurement
- BIN function

RS PRO LCR-6200 Bench LCR Meter 9999.99mF, 99.9999MΩ, 9999.99H

RS Stock No.: 117-6715

RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

RS PRO LCR-6000 Series meters feature a 0.05% basic accuracy, compact size (2U half-rack) and large (3.5 inch) colour LCD. Measurement efficiency is increased by the simultaneous display on screen of not only setting criteria and measured results but also two additional monitoring parameters. The measurement results include a PASS/FAIL display for fast validation. Operators can freely change frequency, within the range of the model, so can save the time and hassle of repeating zero operations. Also included are Safety instructions, power cord, test fixture LCR-06A, and CD. (user manual, PC software)

General Specifications

Model Number	LCR-6200
Type	Bench
Components Type	Inductors, Capacitors, Resistors
Measurement Parameters	C/L/R/G/B/Y/D/Q/θ/DCR
Test Mode	Series / Parallel
Test Frequency	10Hz to 200kHz
Output Impedance	30Ω / 50Ω / 100Ω selectable
Basic Accuracy	0.05%
Test Speed	FAST : 25ms / MED : 100ms / SLOW : 333ms
DC Bias	Internal ±2.5V (0.5% + 0.005V)
Bin Function	Comparator (9BIN,AUX:1BIN)
Memory	10000 Data points
Display Type	3.5”LCD
Auto Ranging	Yes
Data Hold	Yes
Auto Power Off time	Yes
Low Battery Indicator	Yes
Overload Indication	Yes
Interface	USB / RS-232

Display Range

Parameter	Range
R, X, |Z|	0.00001Ω to 99.9999MΩ
G, B, |Y|	0.01nS to 999.999S
L	0.00001mH to 9999.99H
C	0.00001pF to 9999.99mF
D	0.00001 to 9.99999
Q	0.00001 to 99999.9
θd	-179.999° to 179.999°
θr	-3.14159 to 3.14159
DCR	0.00001Ω to 99.9999MΩ
Δ%	-99999% ~ 99999%

Test Signal Measurement

AC	
Levels	10.00mV to 2.00V
Level Accuracy	10%
Output Impedance	100Ω (nominal)
Frequency	10Hz to 200kHz
Resolution	0.01Hz (100Hz to 120Hz)
	0.1Hz (1KHz)
	1Hz (10kHz)
	10Hz (100.0kHz)
Frequency Accuracy	± 0.01%

DC	
Level Range	1V
Level Accuracy	5%
Output Impedance	100Ω (nominal)

Electrical Specifications

Power Source	Mains
Battery Included	No

Mechanical Specifications

Dimensions	265mm x 312mm x 107mm
Length	265mm
Width	312mm
Height	107mm
Weight	3kg

Operation Environment Specifications

Operating Humidity	Up to 70% relative humidity (R.H.)
Operating Temperature	0°C to 50°C

Approvals

Compliance/Certifications	EN 61340
Declarations	RoHS Certificate of Compliance

A. Consecutive Frequency and Convenient Zero Function

Consecutive and Adjustable Frequency
Freely Input Frequency Within Provided Frequency Range

Selectable Fixture Zeroing Methods
Full Frequency Range Zero or Spot Zero

The LCR-6000 series, within the provided frequency range, features consecutive and adjustable frequency capability which allows users to conduct measurement and analysis on components with the most genuine frequency requirements. For OPEN/SHORT fixture compensation function, the LCR-6000 series is equipped with full frequency range zero and spot zero selections. After executing full frequency range zero, users, under the conditions of not turning off the power and not changing test fixture, can freely change test frequency for the LCR-6000 series to execute component measurements that tremendously saves time in repeatedly zeroing test fixture after changing frequency.

B. Rich and Diverse Information Display

MEAS Display
Parameter Setting and Four Measurement Parameters

ENLARGE Display
Enlarge Measurement Results and Include PASS/FAIL Judgment

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The measurement result display of the LCR-6000 series not only reveals major and secondary measurement parameters but also includes two monitoring parameters. Therefore, four DUT related parameters can be simultaneously shown on the display screen to save time if repeated measurements are required. With respect to display screen, the LCR-6000 series features diverse display to meet users' observation requirements. For instance, MEAS display shows setting parameters and measurement results at the same time; ENLARGE display focuses on measurement results and PASS/FAIL judgment is available, which is conducive to assist engineers to swiftly obtain the validity of measurement results.

C. Diverse Ancillary Measurement Functions

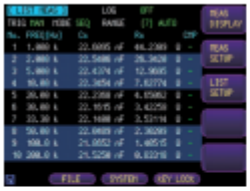
Automatic Level Control
Ideal for Measuring Components With Voltage Requirements

Internal Bias (±2.5V Adjustable)
Ideal for Capacitive Components' Characteristic Tests

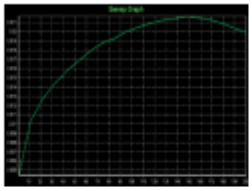
D.C. Resistance Measurement
Ideal for inductive components' D.C. Characteristics Verification

To satisfy the diverse measurement application requirements for different components and materials, the LCR-6000 series collocates with many auxiliary measurement functions. For capacitor measurement, Automatic Level Control (ALC) is mainly for component which requires a constant or rated test voltage such as multi-layer ceramic capacitor (MLCC). An internal D.C. bias voltage (±2.5V, internal) is allowing simulating A.C. and D.C. coexistence to learn capacitance variation. For inductor measurement, the D.C. resistance measurement function is to validate D.C. resistance characteristics. Additional, the LCZ function is to quickly identify components ' characteristics. When the function is activated, the LCR-6000 series will automatically determine DUTs' characteristics and reveal the optimum parameters to show the measurement results.

D. 10 Points Listed Tests and PC Software



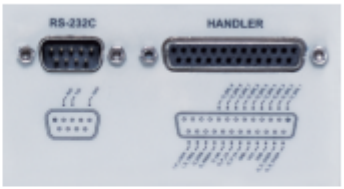
Listed Tests
Variation Criteria Based Upon Frequency or Voltage/Current



On Software - Characteristic Curve
Provide More Delicate Characteristic Variation Trend

The LCR-6000 series provides the 10 points listed test function, which allows users to define a set of DUT measurement parameters (such as Cs-Rs) and to set 10 test criteria of category (either by frequency or by voltage or by current) but different values to conduct measurements. Through this function, users can rapidly and clearly obtain DUT's characteristic variation trend to determine the adaptability of DUT's practical applications. The measurement results can be recorded directly in the internal memory and be transferred to the PC through USB. The LCR-6000 series also provides free PC software (maximum 1,000 points listed tests) in order to satisfy users' analytical requirements on delicate variation.

E. Standard Interface



Standard Interface

For interface connectivity, the LCR-6000 series comes equipped with Handler interface and RS-232C interface. Handler outputs 10 BIN (9BIN, AUX: 1BIN) sorting results that is best for external connection control, for instance, connecting to a sorting machine to conduct components' sorting operation. RS-232C is suitable for remote control and measurement results retrieval. The PC gives commands to control settings or to read measurement results so as to achieve the requirements of verifying automotive applications.

ORDERING INFORMATION

LCR-6300	10Hz ~ 300kHz Precision LCR Meter
LCR-6200	10Hz ~ 200kHz Precision LCR Meter
LCR-6100	10Hz ~ 100kHz Precision LCR Meter
LCR-6020	10Hz ~ 20kHz Precision LCR Meter
LCR-6002	10Hz ~ 2kHz Precision LCR Meter

ACCESSORIES

Safety Sheet x 1, Power Cord x 1, Test Fixture LCR-06A x 1, CD x 1 (User manual/PC software)

OPTIONAL ASSESSORIES

6666445	LCR-06B	Kelvin Clip Test Lead
6666457	LCR-07	Test Fixture, Two-Wire with Alligator Clips
5136081	LCR-08	Test Fixture (Tweezers) for SMD/Chip Components

RS PRO LCR-6000 Series offers a choice of 5 models with different test frequency: 2 kHz, LCR-6002, 117-6718 ; 20 kHz, LCR-6020, 117-6717 ; 100 kHz, LCR-6100, 117-6716 ; 200 kHz, LCR-6200, 117-6715 ; 300 kHz, LCR-6300, 117-6714)