

LCR Meter

LCR Meter (Fixed Testing Frequency) TL-3700 Series

Product description:

TL-3700 series is a precision LCR digital bridge, a micro desktop instrument controlled by a high-performance. The instrument can choose any testing frequency between 50Hz ~ 100kHz and can choose a testing signal level between 0.01V and 1V in steps of 0.01V. It has built-in -1V~+1V programmable DC bias to automatically measure inductance, capacitance, resistance, complex impedance Z, quality factor Q, loss angle tangent D and phase angle θ (degree), phase θ (radians) and DC resistance. This model can meet the requirements of passive component impedance analysis and parameter evaluation of inductors, capacitors, resistor, network components, impedance measurement of relays, circuit boards, cables, switches and batteries.



Features

- 24-bit color 4.3-inch color LCD display.
- Basic accuracy: 0.1%
- Frequency up to 100KHZ, 11 frequency points.
- All six main and auxiliary parameters.
- Soft switch start.
- DC resistance DCR measurement (only model TL-3710-11).
- The maximum speed can reach 19ms
- 10-level comparison function, upper limit, lower limit, qualified, alarm function.
- Screen capture function, data recording and parameter saving function.
- Automatically upgrade the instrument operating software via USB HOST.
- Handler interface is used to implement online operations.
- Support SCPI and MODBUS protocols.

Specifications

Model	TL-3701-4	TL-3710-11
Display	4.3-inch 480x272 resolution, 24-bit color TFT display	
Test Functions	Cs-Rs, Cs-D, Cp-Rp, Cp-D, Lp-Rp, Lp-Q, Ls-Rs, Ls-Q, R, X, IZI, D, Q, θ rad, θ deg, Vm, Im, Δ %, DCR (only TL-3710-11)	
Accuracy	LCRZ : 0.1%	LCRZ : 0.1%, DCR : 0.1%
Measurement Frequency	100Hz, 120Hz, 1kHz, 10kHz	50Hz, 60Hz, 100Hz, 120Hz, 1kHz, 16kHz, 20kHz, 40kHz, 50kHz, 100kHz
Measurement Speed	Fast : 19ms, Medium : 83ms, Slow : 333ms	
Signal Level	AC	0.01Vrms, 0.02Vrms, 0.05Vrms, 0.1Vrms, 0.25Vrms, 0.5Vrms, 1Vrms
	DC	1V
Source Resistance	30 Ω and 100 Ω \pm 1% selectable	
Display Range	IZI, R, X : 0.00001 Ω ~ 99.9999M Ω	
	C : 0.00001pF ~ 9.99999F	
	L : 0.00001 μ H ~ 99.9999kH	
	D : 0.00001 ~ 9.99999	
	Q : 0.00001 ~ 99999.9	
	θ rad : -179.999 $^\circ$ ~ 179.999 $^\circ$	
	θ deg : -3.14159 ~ 3.14159	
	Δ % : 999.999% ~ 9999.999%	
Correction Mode	Open circuit, short circuit, load calibration	DCR : 0.00001 Ω ~ 99.9999M Ω
DC Bias	-	-1V ~ +1V
Equivalent Circuit	Serial and parallel	
Trigger Mode	INT/MAN/EXT/BUS	
List Test	10 steps setting	
Comparator	10 level sorting, BIN1 ~ BIN9, NG, AUX, level counting function, PASS, FAIL	
Deviation Test Function	Direct reading, Δ ABS, Δ %	
Memory	Internal : 40 sets of instrument built-in test setting files, USB memory : setting files, CSV data files, GIF images (only TL-3710-11)	
Interface	USB Host, USB Device, RS-232C, RS-485 and GPIB (option), Handler, support SCPI and MODBUS protocols	
Working Environment	Temperature : 0 ~ 40 $^\circ$ C, Humidity : \leq 75%RH	
Input Power	198 ~ 242Vac 47 ~ 63Hz, <80VA	
Dimension (WxHxD)	215x88x335 mm.	
Weight	3.6 kg.	

Ordering Informations

TL-3701-4 : 100Hz ~ 10kHz (4 steps test freq.) LCR Meter

TL-3710-11 : 50Hz ~ 100kHz (11 steps test freq.) LCR Meter

Standard Accessories :

- User Manual
- Test clip
- Short-circuit chip
- Test fixture
- Power cord
- Test report