

Component Parameter Test Instruments

A. TH283X Series Compact LCR Meter

Features

- Low cost, high performance, small size
- 4.3 inch TFT LCD Display
- Soft power switch
- Selectable Chinese-English operation language
- Max. 200kHz test frequency
- Max. 6 digit reading resolution
- 10mVrms-2.0Vrms programmable signal level,
built-in 0 - $\pm 5V/50mA$ bias source
- DCR, 50mV-2V programmable test level, resolution 10 $\mu\Omega$
- Ls-Rd / Lp-Rd Function (L, Rd display simultaneously) *
- Highest test speed 13ms/time
- Selectable 30 $\Omega/100\Omega$ signal source impedance
- V/I monitor and auto level adjustment function
- Built-in comparator, 10 bins sorting and count function
- File storage and firmware update through U disk
- RS232, RS485, USB, HANDLER, GPIB interface

* Rd means DCR.



TH283X Series

Rack mount (mm): 215(W) x 88(H) x 335(D)
Dimension (mm): 235(W) x 105(H) x 360(D)
Net weight: 3.6 kg

Brief Introduction

■ Adopting the latest technology & high density circuit design and concentrating the essence of LCR test, TH283X series is a new generation compact LCR meter of low cost and high performance. Instead of traditional mechanical power switch, it adopts software control power switch. The basic accuracy of 0.05% and good test stability can compare favourably with those high-end models. Being equipped with 4.3 inch TFT LCD Display and brand new interface system, TH283X series LCR meters possess elegant appearance and easy operation. Also, being provided with various interfaces and good compatibility with SCPI commands, TH283X series LCR meters are convenient for constituting all kinds of test system and satisfy various kinds of demands for inspection, production and scientific research.

Specifications

Model		TH2830	TH2832
Basic measurement accuracy (See details in technical specification)	LCRZ	0.05%	0.05%
	DCR	0.1%	
	Calibration condition	Warm up time: ≥ 30 minutes ; Environment temperature: 23 $\pm 5^{\circ}C$ Signal level: 1Vrms ; Corretion: after OPEN, SHORT Testing cable length: 0 m	
Test signal frequency		50Hz-100kHz , 34points 50Hz, 60Hz, 75Hz, 100Hz, 120Hz, 150Hz, 200Hz, 250Hz, 300Hz, 400Hz, 500Hz, 600Hz, 750Hz, 1kHz, 1.2kHz, 1.5kHz, 2kHz, 2.5kHz, 3kHz, 4kHz, 5kHz, 6kHz, 7.5kHz, 10kHz, 12kHz, 15kHz, 20kHz, 25kHz, 30kHz, 40kHz, 50kHz, 60kHz, 75kHz, 100kHz	20Hz-200kHz, 15025 points
Signal source output impedance		Selectable 30 Ω , 100 Ω , $\pm 1\%$ @1kHz	

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AC test signal level	Normal	10mV—2Vrms	
		Resolution: 10mV, Accuracy: 10% x setting voltage+2mV	
	Constant level (ALC ON)	100μA—20mArms	
		Resolution: 0.1mA	
DCR test signal level		1V DC	50mV—2V DC
DC bias voltage source		-----	20mV—1Vrms
		-----	Resolution: 10mV , Accuracy: 10%
		-----	200μA—10mArms
		-----	Resolution: 0.1mA
Test parameters		Z , Y , C, L, X, B, R, G, D, Q, θ, DCR	
DCR display range		0.00001 Ω – 99.9999 MΩ	
LCR parameters display range		Z , R, X 0.00001Ω — 99.9999MΩ Y , G, B 0.00001μs — 99.9999s C 0.00001pF — 9.99999F L 0.00001μH — 99.9999kH D 0.00001 — 9.99999 Q 0.00001 — 99999.9 θ(DEG) -179.999° — 179.999° θ(RAD) -3.14159 — 3.14159 Δ% -999.999% — 999.999%	
Display digits		6	6
Measurement time (≥10 kHz)		Fast: 75 meas/sec(13ms), Medium:11 meas/sec(90 ms), Slow: 2.7meas/sec(370 ms)	
Equivalent circuit		Serial, Parallel	
Range mode		Auto, Hold	
Trigger mode		Internal, Manual, External, Bus	
Average time		1–255	
Correction		Open, Short, Load	
Math operation		Direct reading, ΔABS, Δ%	
Trigger delay time setting		0 - 60.000s, 1ms steps	
Step delay time setting		0 - 60.000s, 1ms steps	
List Sweep		·10 points list sweep ·Frequency, AC voltage/current, internal/ external bias voltage/ current can be swept. ·Each sweep point can be sorted separately.	
Comparator function		10 bins, BIN1–BIN9, NG, AUX Bin count function PASS, FAIL LED display on front panel	
Built-in Storage		Internal 100 LCRZ instrument setting files, 201 times test results	
USB Storage		Instrument setting files , measurement result CSV files, printed screen (GIF format)	
Interface	Control interface	HANDLER	
	Communication interface	USB HOST, RS232C, RS485(option), GPIB(option)	
	Storage interface	USB DEVICE (U-disk storage)	

Standard Accessories

Three core power cord
TH26010 Gold-plated short circuit board

TH26011CS 4 terminal pair Kelvin test clip leads
TH26048A Four-terminal test fixture