

Component Parameter Test Instruments

A. TH2817CX LCR Meter

Features

- High-efficient balance test function
- 240×64 dot-matrix graphics LCD display
- Friendly user's interface and easy operation
- 10 typical measurement frequencies from 50Hz to 100kHz
- Built-in ±2VDC bias voltage source, extendable to -5VDC ~+ 5VDC bias voltage or maximum 50mA bias current
- 2 selectable source impedances: 30Ω/100Ω, easy to be compatible with other LCR meters
- Measurement speed up to 20meas/sec
- Transformer parameter test function
- Built-in 5-bin comparator
- Key lock function
- Automatic LCR function
- 12 sets of measurement parameters can be saved
- Automatically retrieving saved measurement parameters
- HANDLER and RS232C interfaces
- Optional GPIB (IEEE-488) interface



TH2817CX

Brief Introduction

■ TH2817CX is an extended Meter tester specializing in testing balance components. By simultaneously measuring two components, you can conveniently make comparison tests on balance components, such as integrated divider resistor, balance capacitor and common-mode filter. Moreover, TH2817CX has the function of DCR balance test especially useful for common-mode filter. Meanwhile, the Tester provides measurement speed up to 20meas/sec, 10 measurement frequencies from 50Hz to 100 kHz, 3 commonly used signal levels, 5-digit resolution and two selectable source impedances. Comprehensive communication and control interfaces can meet the measurement requirements of quality control on production line, incoming inspection, component design and evaluation.

Three communication interfaces available

■ TH2817CX provides three communication interfaces--HANDLER, RS232C and GPIB. So it is convenient to communicate with PC and flexible to build automatic test system and test line.

Convenient to store and recall parameters

■ This tester can store 12 sets of measurement parameters and automatically retrieve the last used set of parameters when turned on, so you do not need to set repeatedly.

Practical transformer test function

■ TH2817CX has the function of transformer test. Using special transformer test fixture, you can measure turn ratio (N, 1/N), mutual inductance (M), primary and secondary inductances (L2A, L2B), primary and secondary resistances (DCR, R2) without change test cable. With adjustable bias voltage from -5V to +5V or DC bias current up to 50mA, the tester can conveniently measure communication transformer and choke with small power.

Balance test function

■ TH2817CX can make comparison tests on balance components with great convenience (such as, integrated divider resistor, balance capacitor and common-mode filter).

Specifications

Measurement function		
Measurement parameter	LCR	$ Z $, R, X, C, D, L, Q, θ (deg) , θ (rad)
	Transformer	M, N, 1/N, L2, DCR2,DCR
	Balance test	L, C, R, Z, DCR2
Basic accuracy		0.1%
Equivalent circuit		Series, parallel
Mathematical function		Absolute value deviation, $\Delta\%$
Ranging mode		Auto, Hold, Manual
Trigger mode		Internal, Manual, External, Bus
Measurement speed		Fast: 20meas/sec, Medium: 8meas/sec. Slow: 2meas/sec
Average times		1 to 99

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Calibration function	single frequency point or sweep frequency Open/Short correction
Measurement terminal	5-terminal
Display mode	direct, Δ , $\Delta\%$
Display	240×64 dot-matrix LCD with 5-digit resolution
Measurement signal	
Signal frequency	10 points: 50Hz, 60Hz, 100Hz, 120Hz, 1kHz, 10kHz, 20kHz, 40kHz, 50kHz, 100kHz
Source impedance	30 Ω , 100 Ω
Test level	0.1Vrms, 0.3Vrms, 1Vrms
DC bias source	Fixed: $\pm 2V$, 0 to $\pm 5V$ adjustable, 0 to $\pm 50mA$ adjustable
Measurement display range	
Z , R, X	0.0001 Ω — 99.999M Ω
C	0.001pF — 99999 μF
L	0.001 μH — 99.999kH
D	0.0001 — 9.9999
Q	0.0001 — 99999
θ (deg)	-179.99° — 179.99°
θ (rad)	-3.1416 — 3.1416
$\Delta\%$	-99.999% — 99.999%
N, 1/N	0.001 — 999.99
DCR	0.01m Ω — 1.9999M Ω
M, L2	0.001 μH — 99.99kH
Comparator and interface	
Comparator	5 bins (3 PASS bins, 1 FAIL bin), 1 AUX bin
Memory	12 sets of inner instrument settings saved and recalled
Interface	RS232C, HANDLER, GPIB (optional)

General Specifications

Working temperature & Humidity	0°C - 40°C, $\leq 90\%RH$
Power supply	198V - 242V, 47.5Hz - 52.5Hz
Power consumption	$\leq 30VA$
Dimensions (W×H×D)	350mm×120mm×400mm
Weight	Approx. 4 kg

Ordering Information

TH2817CX LCR Tester

Instrument Accessories

TH26005A	4-terminal test fixture
TH26011A	4-terminal Kelvin test cable
TH26010	Gilded shorting plate Filter test fixture

Options

TH26001A	4-terminal test fixture
TH26005B	4-terminal test fixture
TH26006	Axial component test fixture (used with TH26005)
TH26007A	Core test fixture
TH26008A	SMD component test fixture
TH26009B	SMD test tweezers
TH26029B	SMD test tweezers
TH26038	Transformer test fixture
TH17B01	GPIB interface board