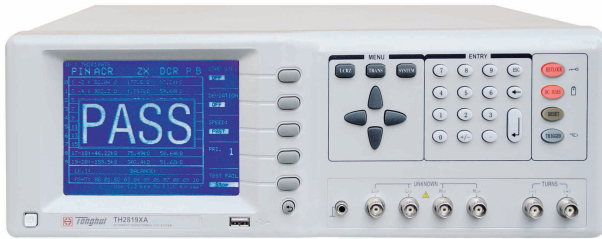


Transformer, Motor and Winding Test Instruments

D. TH2819XA/TH2819XB Automatic Transformer Test System

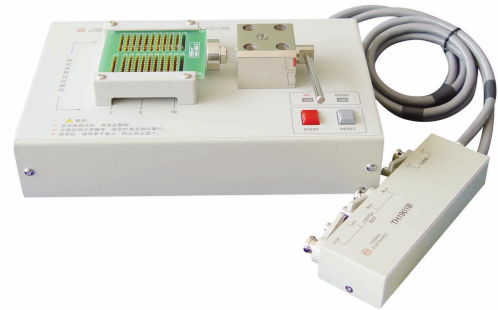
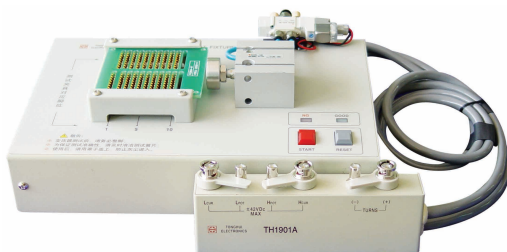


TH2819XA/XB

Features

- TH2819XA: 20-channel transformer scanning measurement +LCR meter
- TH2819XB: 20-channel transformer scanning measurement
- 320×240 dot-matrix large graphics LCD display
- Chinese and English operation languages
- Measurement frequency from 20Hz to 200kHz, with resolution of 10mHz
- 4 different signal source output impedances
- Basic accuracy of 0.1%
- Open, Short and Load correction
- 10-point list sweep function(only for TH2819XA)
- Built-in comparator, 10 bins and bin counters (only for TH2819XA)
- Test signal level monitor function (only for TH2819XA)
- Automatic level control function for V and I (only for TH2819XA)
- 0V, 1.5V and 2V internal DC bias voltage
- 20 sets of instrument settings saved and loaded
- 40 sets of transformer scanning settings saved and loaded
- Optional $\pm 10V(\pm 100mA)$ and 1A internal DC bias source
- Standard RS232C interface and USB interface

TH1901A



TH1901B

Brief Introduction

- TH2819XA/TH2819XB is an automatic transformer multi-parameter measurement instrument used for quality control of electronic transformer over a wide range of frequency (20 Hz to 200 kHz). Almost all low-voltage transformer parameters can be scanned. The primary parameters include Inductance L, Leakage Inductance Lk, Turns-Ratio Tr, DC resistance DCR, Impedance |Z|, and Capacitance (between windings) C etc.; The secondary parameters include Quality Factor Q, ESR and Phase etc., And pin short can also be detected as well.
- The advanced digital sampling technique and high-speed scanning test fixture make the transformer inspection more accurate and efficient, which used to be of low efficiency before such a system was used. The system provides several signal output impedances for selection in order to be compatible with some well-known LCR instrument providers when an inductor is measured. Turns-ratio is calculated by the inductance of primary and secondary windings, which decreases the measurement error caused by large leakage of magnetic flux, for example low-coupling coefficient transformer.
- TH2819XA is also a precise impedance measurement instrument with 6-digit resolution and high speed over a wide measurement range. It can be used for incoming inspection of components, quality control of product line and laboratory use.

Transformer, Motor and Winding Test Instruments

D. TH2819XA/TH2819XB Automatic Transformer Test System

Specifications

TH2819XA	20-channel transformer scanning measurement + LCR meter	
TH2819XB	20-channel transformer scanning measurement	
TH2819XA LCR parameter	Z , Y , C, L, X, B, R, G, D, Q, θ DCR, turns ratio, phase, leakage inductance	
Transformer parameter	turns ratio, turns, phase, L, C, Lk, Q, ACR, DCR, balance, pin short	
Test frequency	20 Hz–200 kHz, with resolution of 10mHz	
Test level	LCR measurement: 5mV–2V Turns measurement: 5mV–10Vms	
	Constant level: 10mV–1V Accuracy: 5% resolution: 1mV	
Output impedance	Turns – Ratio	$\leq 2V_{rms}$: 10 Ω , 30 Ω , 100 Ω $> 2V_{rms}$: 30 Ω , 100 Ω
	Others	30 Ω , 100 Ω selectable
Basic Accuracy	LCRZ, DCR	0.1%
	Turns ratio	0.5%
Display range	Z , R, X	0.00001 Ω — 99.9999M Ω
	Y , G, B	0.00001 μ S — 99.9999S
	C	0.00001pF — 9.99999F
	L	0.00001 μ H — 99.9999KH
	D	0.00001 — 9.99999
	Q	0.00001 — 99999.9
	DCR	1m Ω — 99.9999M Ω
	θ (DEG)	-179.999 $^{\circ}$ — 179.999 $^{\circ}$
	θ (RAD)	-3.14159 — 3.14159
	turns ratio	1:0.01—100:1
	$\Delta\%$	-999.999% — 999.999%
DCR Display Range	1m Ω – 99.9999M Ω	
Measurement time (≥ 1 kHz)	Fast: 32ms, Medium: 90ms, Slow: 650ms	
Equivalent circuit	Series, Parallel	
Range mode	Auto, Hold	
Trigger mode	Internal, Manual, External	
Average times	1-255	
Calibration function	Open / Short / Load	
internal DC bias source	0V, 1.5V, 2V, accuracy: 1%	
Comparator	10-bin sorting and bin counter	
Memory	20 sets of LCRZ setting files saved (TH2819XA) 40 sets of scanning setting files saved (TH2819XA)	
Interface	RS232C, USB	

General Specifications

TH2819XA/TH2819XB

Operating Temperature And Humidity		0 $^{\circ}$ C–40 $^{\circ}$ C, $\leq 90\%$ RH
Power Requirements	Voltage	99V - 121V ,198V–242V
	Frequency	47.5Hz–63Hz
Power Consumption		≤ 80 VA
Dimensions (W×H×D)		400mm×150mm×430mm
Weight		Approx. 8.5kg

TH1901A/TH1901B

Operating Temperature And Humidity		0 $^{\circ}$ C–40 $^{\circ}$ C, $\leq 90\%$ RH
Dimensions (W×H×D)		270mm×186mm×73mm
Weight		Approx. 4 kg

Ordering Information

TH2819XA Automatic Transformer Test System
TH2819XB Automatic Transformer Test System

Instrument Accessories

TH26005B	4 terminal test fixture (only TH2819XA)
TH26011A	4 terminal Kelvin test clip leads
TH26004B	2 terminals test clip leads
TH26016	Transform scan control cable
TH2801-001	Foot switch
TH26010	Gilded shorting plate (only TH2819XA)
TH26025	USB Interface Board
TH1901B	Manual transformer scanning fixture
TH1801-EXT11A	5mm DIP test socket

Options

TH26001A	4 terminal test fixture
TH26006	Axial component test fixture
TH26007	Core inductor test fixture
TH26008	SMD component test fixture
TH26009B	SMD Kelvin test tweezers
TH1901A	Pneumatic transformer scanning fixture
TH1902A	100mA/10V DC bias board
TH1902B	1A DC bias board
TH26026	32 MB USB - Disk
TH10002	GPIB interface board
TH26019	RS232C control software (TH2818XA)
TH26020	RS232C control software (TH2818XB)