

Transformer, Motor and Winding Test Instruments

D. TH2818XA/TH2818XB/TH2818XC Automatic Transformer Test System

Features

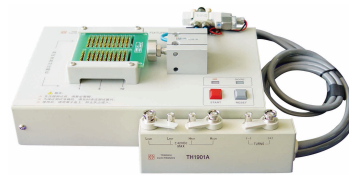
TH2818XA/TH2818XB Mainframe

TH2818XA:LCR+TH2818XB

TH2818XB:Max.20 pins programmable scanning test

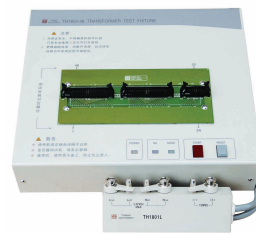
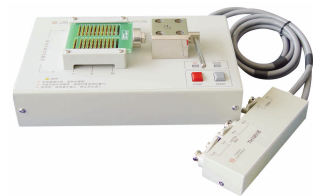
TH2818XC:LCR+Max.48 pins programmable scanning test

- 320x240 dot-matrix large graphics LCD display
- Chinese and English languages user interface selectable
- LCRZ, DCR, Turn-Ratio etc. test functions
- 20Hz to 300KHz test frequencies, 10MHz resolution
- 2 different signal source output impedances: 30 Ω and 100 Ω
- 0.05% basic test accuracy
- Open, Short and Load correction functions
- 10 points list sweep function (TH2818XA only)
- Built-in comparator, 10 bins and bin counters (TH2818XA only)
- Test signal level monitor function (TH2818XA only)
- Automatic level control function for V and I (TH2818XA only)
- 0V, 1.5V and 2V internal DC bias voltage
- Up to 20 control setting files memory for LCRZ measurement
- Up to 40 control setting files memory for transformer measurement
- Standard RS232C interface
- Optional HANDLER and GPIB interface
- Optional $\pm 10V(\pm 100 \text{ mA})$ and 1A internal DC bias source
- Optional USB interface and 32 MB USB-Disk

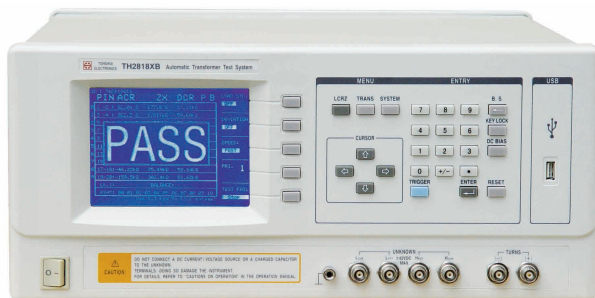


TH1901A

TH1901B



TH1803



Hi-Tech Product of JiangSu Province

TH2818XA/TH2818XB/TH2818XC

Transformer scanning test fixture

- Standard transformer test control interface
- High speed and long life
- Complete four-terminal test up to transformer pins
- Transformer can be fixed in the fixture manually or pneumatically
- Up to 20 transformer pins can be programmed
- Standard(2.54 mm/ 5 mm space between pins) and custom design fixtures available
- PASS/FAIL LED indications, high/low and long/short alarm control
- HANDLER interface output with test status and results

Brief Introduction

■ TH2818XA/TH2818XB is an Automatic Transformer multi-parameter Test system used for quality control of electronic transformer over a wide range of frequency (20 Hz to 300KHz). 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., Pin short can also be detected. The advanced digital sampling technique and high speed scanning test fixture make the transformer inspection more accurate and efficient, it is used to be low-efficient before the use of such a test system. TH2818XA/XB 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. TH2818XA is also a precision impedance test instrument with 6 digit display resolution 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. TH2818XA/TH2818XB/TH2818XC Automatic Transformer Test System

Specifications

TH2818XA	Transformer scan test plus LCR meter	LCR+TH2818XB
TH2818XC		LCR+Max.48 pins programmable scanning test
TH2818XB	Transformer scan test Max.20 pins programmable scanning test	
TH2818XA LCR Test Parameters	Z , Y , C, L, X, B, R, G, D, Q, θ DCR, Turns-Ratio, phase, LK	
Transformer Test Parameter	Turn Ratio, Turns, Phase, L, C, Lk, Q, ACR, DCR, Balance, Pin Short	
Test Frequency	20Hz–300KHz, Resolution:10mHz, Accuracy: 0.01%	
Test Level	Normal: 5mV to 2V, Turn-Ratio: 5mV to 2V Resolution:1mV, Accuracy:5%	
Output Impedance	Turn-Ratio	$\leq 2 V_{rms} : 10 \Omega$; >2Vrms:30 Ω
	Others	30 Ω and 100 Ω selectable
Basic Accuracy	LCRZ,DCR: 0.05% Turns - Ratio: 0.5%	
Turns-Ratio Display Range	1:0.01 – 100:1	
DCR Display Range	1m Ω – 99.999M Ω	
Display Range	Z , R, X	0.00001 Ω — 99.9999 M Ω
	Y , G, B	0.00001 μ S — 99.9999 S
	C	0.00001 pF — 9.9999 F
	L	0.00001 μ H — 9999.99 H
	D	0.00001 — 9.9999
	Q	0.00001 — 9999.9
	θ (DEG)	-179.999° — 179.999 °
	θ (RAD)	-3.14159 — 3.14159
	Turn-Ratio	1:100—100:1
	$\Delta\%$	-999.999% — 999.999%
Measuring Time	Fast: 32ms, Med: 90ms, Slow:650ms	
Equivalent Circuit	Series and parallel	
Ranging Mode	Auto and Hold	
Trigger Mode	Internal, Manual, External	
Averaging Rate	1—255	
Correction Function	Open, Short and Load corrections	
Inner DC bias source	0V, 1.5V, 2V, Accuracy: 1%	
TH2818XA Comparator Function	bins bin counters	
Memory	20 control setting files memory for LCRZ test 40 control setting files memory for transformer test	

General Specifications

TH2818XA/TH2818XB

Operating Temperature And Humidity	0°C–40°C, \leq 90%RH	
Power Requirements	Voltage	99V - 121V, 198V–242V
	Frequency	47.5Hz–52.5Hz
Power Consumption	\leq 80 VA	
Dimensions (W×H×D)	430mm×185mm×490mm	
Weight	Approx. 13 kg	

TH1801A/TH1801B

Operating Temperature And Humidity	0°C–40°C, \leq 90%RH	
Dimensions (W×H×D)	270mm×186mm×75mm	
Weight	Approx. 3.4 kg	

Ordering Information

TH2818XA Automatic Transformer Test System
 TH2818XB Automatic Transformer Test System
 TH2818XC Automatic Transformer Test System

Instrument Accessories

TH26005B	4-terminal test fixture(only TH2818XA)
TH26011A	4-terminal Kelvin test clip leads
TH26004B	2 terminals test clip leads
TH26016	Transform scan control cable
TH1801-001	Foot switch
TH26010	Gilded shorting plate (only TH2818XA)
TH26025	USB Interface Board (only TH2818XA)
TH1901B	Manual transformer scanning fixture
TH1801-EXT11A	5mm Force 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
TH1802A	100mA/10V DC bias board
TH1802B	1A DC bias board
TH26025	USB Interface Board
TH26026	32 MB USB- Disk
TH10002	GPIB interface board
TH12019	RS232C control software (TH2818XA)
TH12020	RS232C control software (TH2818XB)