Component Parameter Test Instruments

A. TH2822 Series Handheld LCR Meter

Features

- Max. Basic accuracy: 0.25%
- Maximum test signal frequency : 100kHz
- Selectable test signal level
- With DCR function
- Enhanced protection capability of input terminal impact
- 40000 counts for primary parameter, D/Q resolution 0.0001
- Typical ultra-low consumption: 25mA
- Innovatively compatible terminal configuration: 5-terminal test slot and 3-terminal banana jack
- Intellectualized auto LCR function
- AC test speed up to 4 meas/sec (DCR: 3 meas/sec), fast automatic range switch design
- Constant 100Ω output impedance
- Percentage display and 4-tolerance comparator: 1/5/10/20%
- Battery charge in startup & shutdown
- Test terminal protection function
- Data-hold, Max./Min./Average value recording
- Real-time function configuration selection and working condition hold capacity
- Standard configuration Mini – USB communication interface and SCPI command set
- Free FastAccess PC communication software on our website
- Gorgeous dual-color cast shell

TH2822 series

Brief Introduction

■ With its advanced impedance test technology, Tonghui has launched TH2822 series handheld LCR meters. This series currently possess the most powerful functions and outstanding performance in this industry comparable with bench LCR meters. Meanwhile it is the achievement of Tonghui after years of efforts and research in the passive-component testing field.

TH2822 series apply the ultra-low power consumption design and high density SMD assembly techniques and can simultaneously display primary and secondary parameters on a LCD display with backlight. The dual-color shell is gorgeously once shaped; and functions are easy to operate. The test frequency is up to 100 kHz, the readings of primary parameter 40,000 counts and the resolution of dissipation factor 0.0,001. Accurate and convenient measurements of passive-components can be achieved in different occasions for a long time. In order to meet different market demand, multiple signal level and DCR test function are increased on TH2822D/E. The test accuracy can reach 0.1%. With USB interface, TH2822 series can conveniently communicate with a PC and be remotely controlled by a PC. In order to satisfy the increasing test requirements for SMD and balance the different needs for performance and price, two types of 4-terminal Kelvin test tweezers: TH26009C and TH26029C are optional for users' choice.

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Specifications

Model	TH2822	TH2822A	TH2822C	TH2822D	TH2822E
Function					
Test Parameter	Primary parameters: L / C / R / Z Secondary parameters: D / Q / R /θ/ ESR			Primary parameters: L / C / R / Z/ DCR Secondary parameters: D / Q / R /θ/ ESR	
Equivalent Circuit	Series and Parallel				
Parameter and Equivalent Mode	Hold, Auto				
Ranging Mode	Auto				
Measurement Terminals	3-terminal, 5-terminal				
Measuring Speed	4meas/sec, 1.5meas/sec				
DCR Measuring Speed	------			3meas/sec	
Calibration Function	Open, short				
Comparator Function	1%, 5%, 10%	1%, 5%, 10%, 20%		1%, 5%, 10%, 20%	
Input fuse	0.1A / 250V				
Interface	Mini-USB (virtual serial port)				
Test signal					
Test Frequency	100Hz, 120Hz, 1kHz	100Hz, 120Hz, 1kHz, 10kHz,	100Hz, 120Hz, 1kHz, 10kHz, 100kHz	100Hz, 120Hz, 1kHz, 10kHz,	100Hz, 120Hz, 1kHz, 10kHz, 100kHz
Test Level	0.6Vrms			0.3 Vrms, 0.6 Vrms, 1 Vrms	
Output Resistance	100Ω				
Display					
Display	LCD Primary-Secondary dual display, with backlight (TH2822 not available)				
Reading	Max. Primary parameters: 40,000 digits, secondary parameters D/Q Minimum resolution: 0.0001				
Basic accuracy	0.25%			0.1%	
Measuring Range					
L	0.0μH - 1000.0H	0.00μH - 1000.0H	0.000μH - 1000.0H	0.00μH - 1000.0H	0.000μH - 1000.0H
C	0.0pF - 20.000mF	0.00pF - 20.000mF	0.000pF - 20.000mF	0.00pF - 20.000mF	0.000pF - 20.000mF
Z/R	0.0000Ω- 10.000MΩ				
DCR	------	------	------	0.0000Ω- 20.000MΩ	
ESR	0.0000Ω- 999.9Ω				
D	0.0000 - 9.999				
Q	0.0000 - 9999				
θ	0.00°- ±180.0°				
Power Requirements					
Battery model	TH2822 / A : IEC 6LR61, 9V alkaline battery				
	TH2822C/D/E : LH-200H7C,8.4V Ni-MH 200mAH rechargeable battery				
AC power adapter	Input: 220V/50Hz, Output: 12V-15V(100Ω Load)				
Standby Currant	Max.2μA		18μA	11μA	
Battery life	16 hours (typical) , new alkaline battery, with backlight off				
Auto power off	5min, 15min, 30min, 60min, OFF available; Factory Default : 5min				
Low voltage indicator	When battery voltage drops below 6.8V, low voltage indicator turns on.				