



# Data Sheet

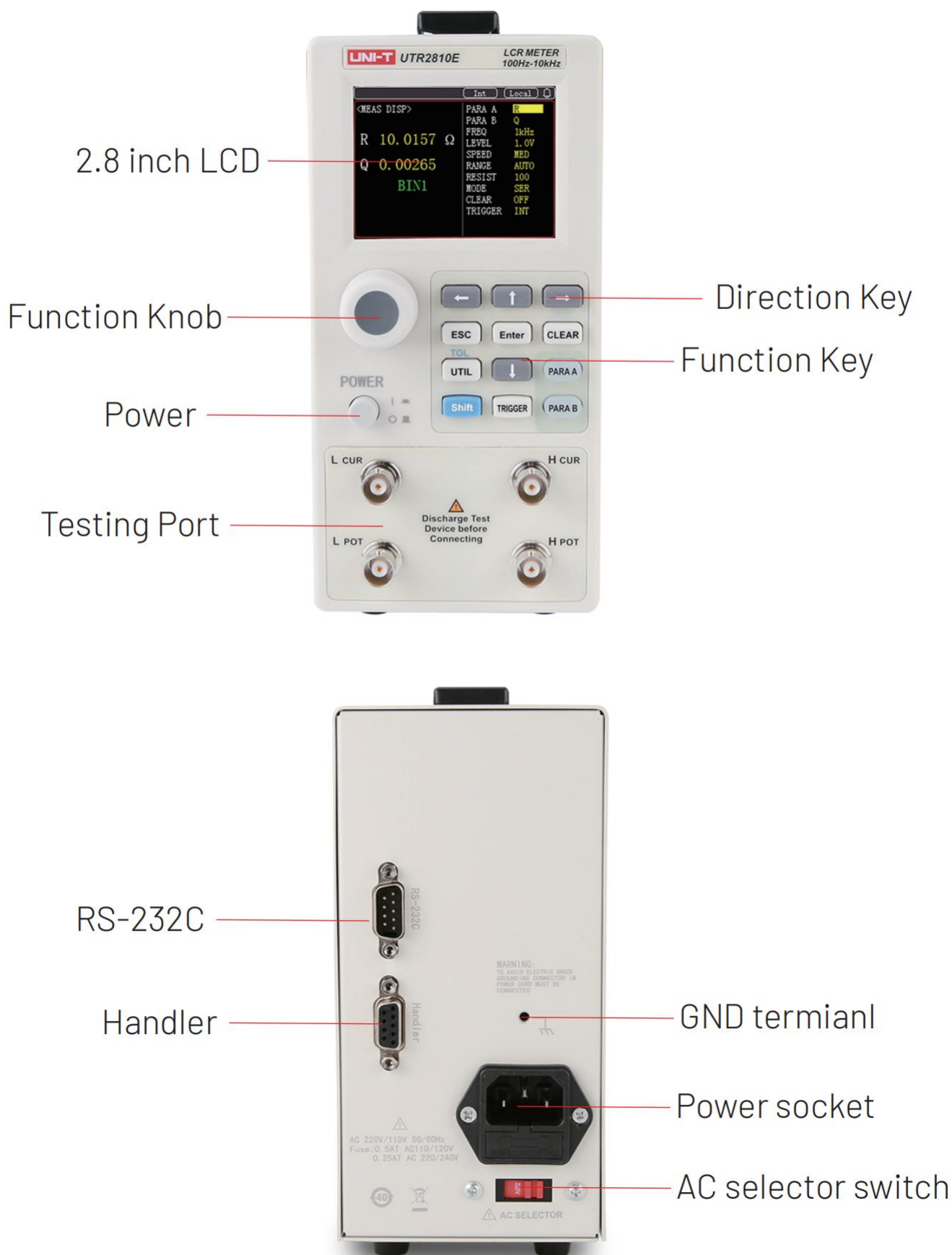
## UTR2810 Series LCR Tester



## Main Features

- 2.8" TFT true color LCD
- Multiple measurement frequency: 100Hz, 120Hz, 1kHz, 10kHz, accuracy: 0.02%
- Highest measurement accuracy: 0.1%
- The main and auxiliary parameters can be matched freely, with 42 combinations in total
- Test speed: slow / medium / fast
- The fastest test speed is 33 times / s
- Automatic LCR measurement function
- Comparator function (4th gear sorting)
- UTR2810E can send sorting signal through Handler interface
- UTR2810E can be connected to the upper computer for statistical analysis
- UTR2810E has bus trigger and external trigger functions

## LCR Tester Panel





# Product Introduction

UTR2810 series LCR digital bridge is a new generation of low frequency component measuring instrument. Small size, light weight, beautiful appearance, simple operation, ultra-high cost performance and good test stability. It can meet the needs of production line quality assurance, incoming material inspection and automatic production.

## Four stage screening

The full series of UTR2810 is equipped with four gear screening comparators, BIN1, BIN2, BIN3, NG. Cooperate with auxiliary parameter AUX to realize multi-stage sorting function. Help you better and more carefully control the quality of electronic components.

Int				Local			
<TOLERANCE>				<MEAS DISP>			
PARA A	R	STAND	+000.000 Ω	PARA A	R		
PARA B	Q	COMP	ON	PARA B	Q		
MODE	ABS	AUX	ON	R	10.0157 Ω	FREQ	1kHz
						LEVEL	1.0V
LOW	[Ω]	HIGH	[Ω]	Q	0.00265	SPEED	WED
BIN1	+010.000	BIN1	+015.000	RANGE		AUTO	
BIN2	+015.000	BIN2	+025.000	RESIST	100		
BIN3	+000.000	BIN3	+000.000	MODE	SER		
AUX	+000.000	AUX	+000.000 [-]	CLEAR	OFF		
				TRIGGER	INT		

## 2.8inch TFT LCD display

UTR2810 series is equipped with 2.8inch full-color LCD display. More parameters are displayed, and the color discrimination of measurement results is more intuitive. It is more conducive to human-computer interaction and improve the use experience.

Int		Local	
<SYSTEM SETTING>			
COMMUNICATION MODE	RS232		
BAUD RATE	115.2k		
PASS SOUND	ON		
FAIL SOUND	ON		
KEY SOUND	ON		
LANGUAGE	ENGLISH		
DEFAULT SETTING	ENTER		
AUTO LCR	OFF		
SAVE SET	OFF		
SYS INFO	HWV2.2 SWV1.6		

Int		Local	
<MEAS DISP>			
PARA A	R		
PARA B	Q		
FREQ	1kHz		
LEVEL	1.0V		
SPEED	MED		
RANGE	AUTO		
RESIST	100		
MODE	SER		
CLEAR	OFF		
TRIGGER	INT		

## High measurement accuracy

The basic accuracy of UTR2810 series measurement can reach 0.1%. Provide multi frequency, multi-level, multi internal resistance and other measurement parameters. Make the measurement results more

accurate and meet a variety of application scenarios.

Int		Local		Int		Local	
<MEAS DISP>		PARA A	C	<MEAS DISP>		PARA A	R
Cs 353.491uF		PARA B	Q	R 19.9999 Ω		PARA B	Q
		FREQ	1kHz			FREQ	1kHz
		LEVEL	1.0V			LEVEL	1.0V
		SPEED	MED			SPEED	MED
Q 7.18589		RANGE	AUTO	Q 0.00261		RANGE	AUTO
		RESIST	100	BIN2		RESIST	100
		MODE	SER			MODE	SER
		CLEAR	OFF			CLEAR	OFF
		TRIGGER	INT			TRIGGER	INT

## Remote control

The UTR2810 series uses the RS232 interface to connect the upper computer, so as to realize remote control. With the host computer software, the data record and filtering can be displayed at the same time. Support SCPI protocol, which can be applied to automatic construction.



# Technical Specification

Model		UTR2811E	UTR2810E
Test signal frequency	Frequency	100Hz,120Hz,1kHz,10kHz	100Hz,120Hz,1kHz,10kHz
	Accuracy	0.02%	0.02%
AC level	Voltage range	0.1V,0.3V,1V	0.1V,0.3V,1V
	Accuracy	±10%*set value	±10%*set value
Internal resistance of AC source	Resistance	30Ω / 100Ω	30Ω / 100Ω
	Accuracy	±5%	±5%
Maximum input voltage		Main parameters: Cp,Cs,Lp,Ls,Z,R,G,Y Secondary parameters D,Q,X,B,Rp,Rs,θr,θd Auto LCR Free collocation of main and auxiliary parameters	Main parameters: Cp,Cs,Lp,Ls,Z,R,G,Y Secondary parameters: D,Q,X,B,Rp,Rs,θr,θd Auto LCR Free collocation of main and auxiliary parameters
Test speed(ms / time)		Fast: 30ms; Medium speed: 170ms; Slow speed: 350ms	Fast: 30ms; Medium speed: 170ms; Slow speed: 350ms
Display range		R, X,  Z : 0.00001Ω ~ 99.9999MΩ G, B,  Y : 0.00001uS ~ 999.999S; L: 0.00001uH ~ 9.99999kH; C: 0.00001pF ~ 999.999mF; D: 0.00001 ~ 9.99999; Q: 0.00001 ~ 99999.9; θd: -179.999° ~ 179.999°; θr: -3.14159 ~ 3.14159;	R, X,  Z : 0.00001Ω ~ 99.9999MΩ; G, B,  Y : 0.00001uS ~ 999.999S; L: 0.00001uH ~ 9.99999kH; C: 0.00001pF ~ 999.999mF D: 0.00001 ~ 9.99999 Q: 0.00001 ~ 99999.9; θd: -179.999° ~ 179.999°; θr: -3.14159 ~ 3.14159
Vertical resolution		C: 0.1% (1+ Cx/Cmax+ Cmin/Cx) (1+Dx) (1+ks+kv+kf) ke L: 0.1% (1+ Lx/Lmax+ Lmin/Lx) (1+1/Qx) (1+ks+kv+kf) ke Z: 0.1% (1+ Zx/Zmax+ Zmin/Zx) (1+ks+kv+kf) ke R: 0.1% (1+ Rx/Rmax+ Rmin/Rx) (1+Qx) (1+ks+kv+kf) ke D: 0.0010 (1+ Zx/Zmax+ Zmin/Zx) (1+Dx+Dx2) (1+ks+kv+kf) ke Q: 0.0015 (1+ Zx/Zmax+ Zmin/Zx) (Qx+1/Qx) (1+ks+kv+kf) ke	
Test end configuration		Open circuit, short circuit	Open circuit, short circuit
Clear function		Open circuit, short circuit	Open circuit, short circuit
Equivalent mode		Series, parallel	Series, parallel
Range mode		Hold, auto	Hold, auto
Trigger mode		Internal, manual	Internal, manual, external, bus
Mathematical operation		Direct reading, ΔABS, Δ%	Direct reading, ΔABS, Δ%
Comparator		Para A 4-gear sorting, BIN1-BIN3, NG, Para B 2-gear sorting, AUX, NG, front panel LCD display	Para A 4-gear sorting, BIN1-BIN3, NG, Para B 2-gear sorting, AUX, NG, front panel LCD display
Interface		-	RS232、HANDLER
Upper computer function		-	Statistical analysis of upper computer
Power		110V/220V 50/60Hz 20W-30W	110V/220V 50/60Hz 20W-30W
Display		2.8" TFT LCD 240×320	2.8" TFT LCD 240×320
Product size (W×H×D)		88mm×174mm×275mm	88mm×174mm×275mm
Product net weight		2.5kg	2.5kg

## Standard accessories

Name	Number	Description
UTR-001	1	Short circuit board(UTR2810E)
UTR-L10kE	1	Kelvin test cable with crocodile clip
UTR-S100kE	1	4-wire test box(UTR2810E)
Communication cable	1	RS232 Communication cable(UTR2810E)
Power cable	1	Fits the standard of destination country

## Warranty

Three-years warranty, excluding probes and accessories.

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