I. TH2848 Series Impedance Analyzer

Features

- High resolution: 10.1 inches, resolution 1280*800,capacitive touch screen
- High precision: automatic balanced bridge technology, fourend pair test configuration
- High stability and consistency: 15 range configurations
- High power: Signal level: 20VAC /100mAAC Built-in DC bias: ±40VDC /100mADC
- High speed: dual CPU architecture, the fastest test speed up to 400 times / s (2.5ms)
- Convenient operation: Linux operating base, touch operation, embedded help
- Three types of tests: spot test, list scan, and graphic scan
- Four-parameter measurement
- One-click recording, one-click screenshot
- 201-point multi-parameter list scanning function
- Graphic scanning function, 4 tracks at will, support 1/2/4 split screen
- Piezoelectric conductivity circle test, dielectric constant test
- Powerful sorting: LCR mode: 10levels of sorting Graphical analysis mode: support curvecondition sorting
- High compatibility: supports SCPI/MODBUS command set.
 Compatible with KEYSIGHT E4980A, E4980AL, HP4284A
- Independent 24V cylinder control

Applications

Passive components

Evaluation of impedance parameters and performance analysis of capacitors, inductors, cores, resistors, piezoelectric devices, transformers, chip assemblies, crystals, and network components.

Semiconductor component

Parasitic parameter testing and analysis of LED driver integrated circuits; C-VDC characterization of varactor diodes; parasitic parameter analysis of transistors or integrated circuits

Other components

Impedance evaluation of printed circuit boards, relays, switches, cables, batteries, etc.

Medium Material

Evaluation of dielectric constants and loss angles of plastics, ceramics and other materials.

NEW



RS232	GPIB	LAN	HANDER
standard	standard	standard	standard
USB HOST	USB DEVICE	RS485	External DCI
standard	standard	standard	standard

TH2848 Series

Dimension: 430mm(W)x177mm(H)x265mm(D)

Weight: 11kg

Magnetic material

Evaluation of permeability and loss angle of ferrites, amorphous and other magnetic materials

Semiconductor materials

Dielectric constant, electrical conductivity and C-V properties of semiconductor materials

Liquid crystal materials

C-V characteristics such as dielectric constant and elasticity constant fliquid crystal units

Piezoelectric materials and devices

Piezo Ceramic Filters, Piezo Ceramic Trap, Piezo Ceramic Discriminator, Piezo Ceramic Transformer, High Power Ultrasonic Generator, Transducer (Oscillator), Surface acoustic wave devices, electroacoustic devices, etc. can be tested such as static capacitance, loss, resonance frequency, anti-resonance frequency, mechanical coupling coefficient and other parameters.

Specifications

Product Mod	del	TH2848-02L	TH2848-02	TH2848-05	TH2848-10			
	Monitor	10.1-inch (diagonal) capacitive touch screen						
Display	Scale	16:9						
	Resolution	1280×RGB×800						
	Methods	Four parameters can be selected arbitrarily						
Management	AC	$Cp,Cs,Lp,Ls,Rp,Rs, Z , Y ,R,X,G,B,\theta,D,Q,V_{AC},I_{AC},$						
Measured Parameters	DC	R _{DC}						
i arameters	Piezoelectricity	Ct,Dt,Fs,Fp,Fp-Fs,Zmin,Zmax,F1,F2,F2-F1,Gmax,C0,C1,R1,L,Kp,Keff,Kt,K31,K33,Qm,ε,εr						
	Dielectric	$Cp,D,\epsilon, \epsilon ,\epsilon r',\epsilon r'',tan\delta,Q$						

I. TH2848 Series Impedance Analyzer

	Range	4Hz-2MHz		4Hz-2N	lHz	4Hz-5MHz	4Hz-10MHz	
Test Frequency	Accuracy	0.01%				<u>'</u>		
	-	0.1mHz 4.0000Hz-99.9999Hz						
	resolution	1mHz 100.000Hz-999.999Hz						
		10mHz 1.00000kHz-9.99999kHz						
		100mHz 10.0000kHz-99.9999kHz						
		1Hz	1010000111112					
		10Hz						
	Dating Value	1.00000111112 0.00000111112						
AC Test	Rating Value (ALC OFF)	The set voltage is the Hcur voltage when the test terminal is open-circuit The set current is the current from Hcur when the test terminal is short-circuited.						
Signal	constant	Keep the voltage on the DUT the same as the set value						
Mode	value(ALC ON)	Keep the current on the DUT the same as the set value						
	,	'			s-20Vrms	F≤1MHz		
				0mVrm:	s-15Vrms	1MHz <f≤2mhz< td=""></f≤2mhz<>		
	voltage range	0Vrms - 2Vrms	5	0mVrm:	s-2Vrms	2MHz <f≤5mhz< td=""></f≤5mhz<>		
				0mVrm:	s-1Vrms	5MHz <f≤10mhz< td=""><td></td></f≤10mhz<>		
	accuracy	± (10%×set value+2mV) (AC≤2Vrms) ± (10%×set value+5mV) (AC > 2Vrms)						
		0.1mVrms		ns-0.2Vri				
		0.2mVrms						
test level	resolution							
		0.5mVrms 0.5Vrms-1Vrms 1mVrms 1Vrms-10Vrms						
	current range	10mVrms 10Vrms-20Vrms 0mArms-20mArms 0mArms-100mArms						
	current range	1µArms		s-2mArm				
	resolution (100Ω internal resistance)	2μArms 2mArms 2mArms						
		5μArms 5mArms-10mArms						
		10μArms 10mArms-100mArms						
	voltage range	100mV-1V						
R _{DC} test	resolution	100μV						
N _{DC} lest	current range	0mA-10mA						
	resolution	10μΑ						
	voltage range	0V-±10V		0V-±40				
	accuracy	1%×set voltag			AC≤2V			
		2%×set voltage+8mV AC>2V						
DC Bias	resolution	0.1mV 0V - ±5V						
	ourrent renge	1mV ±5V - ±40V						
	current range	0mA - ±100mA 1μA 0mA-50mA						
	resolution	10μA 50mA-100mA						
voltage source	voltage range	-10V - 10V						
	resolution	1mV						
	current range	-45mA - +45mA						
	OutputImpedance	100Ω						
Cylinder control	Switching control							
	Turn on	Turns on within the set time from 0-60s						
	Turn off	Turns off within the set time from 0-60s						

I. TH2848 Series Impedance Analyzer

Test cable length Output Impedance 100Ω, ±1%@1kHz Absolute deviation Δ from nominal value, percentage deviation Δ% from nominal value equivalence mode Series, parallel calibration function OPEN,SHORT,LOAD Measured average 1-255 times Range Selection AUTO,HOLD Trigger Mode Continuous, single Trigger delay 0-60s specific function One-click screenshot, one-click record, embedded help system LCR 100mQ,10,100,200,500,1000,2000,5000,1kΩ,2kΩ,5kΩ,10kΩ,20kΩ,50kΩ,100kΩ Measuring time (ms/time) (Frequency ≥ 100kHz) Maximum accuracy 0.05% (refer to specifications) Measurement display range Cs,Cp 0.00001μF - 99.99999F Cs,Cp 0.00001μF - 99.99999F Cs,Cp 0.00001μF - 99.99999H Q 0.00001 + 99.99999 Q 0.00001 + 99.99999M2 G,B,Y 0.00001μS - 99.99999N Voc 10V - ±99.99999V Ibo 10V - ±99.99999V Ibo 10V - ±99.99999V Ibo 10V - ±99.99999V Ifrequency AC voltage, AC current, DC BIAS voltage, DC BIAS current, with dielectric constant test function based on the parameter of each point in this list Scanning Multifunction parameter Irrigger Mode Other features Dielectric constant Dielectric constant Dielectric constant Dielectric constant Dielectric constant Dielectric material Testing Solutions Each scanning point can measure up to four test parameters, each parameter act set set upper and lower limits, all test parameters are qualified to output PASS signal,	Test Side Co	onfiguration	Four-terminal pair				
Absolute deviation Δ from nominal value, percentage deviation Δ% from nominal value equivalence mode Series, paralle			·				
equivalence mode series, parallel calibration function OPEN,SHORT,LOAD Measured average 1-255 times Range Selection AUTO,HOLD Trigger daly 0-60s specific function Open,single Trigger Make 0-60s specific function Open,single Trigger Make 0-60s specific function Open,single Trigger Make 0-60s specific function Open,single 0-60s			100Ω, ±1%@1kHz				
Calibration function OPEN,SHORT,LOAD	mathematica	al operation	Absolute deviation Δ from nominal value, percentage deviation Δ % from nominal				
Measured average 1-255 times Range Selection AUTO,HOLD Trigger Mode Continuous, single Trigger delay 0-60s specific function One-click screenshot, one-click record, embedded help system Range LCR 100mΩ,10,100,20Ω,50Ω,100Ω,200Ω,500Ω,1kΩ,2kΩ,5kΩ,10kΩ,20kΩ,5okΩ,100kΩ Configural Roc 100,20Ω,50Ω,100Ω,20Ω,500Ω,1kΩ,2kΩ,5kΩ,10kΩ,20kΩ,5okΩ,100kΩ Measuring time (ms/time) {Frest: 2.5ms Medium: 90ms Siow: 220ms 4 1×10 ⁻¹⁸ ; E 1×10 ⁻¹⁸ Maximum accuracy 0.05% (refer to specifications) Measurement display range a 1×10 ⁻¹⁸ ; E 1×10 ⁻¹⁸ Cs,Cp 0.00001pF - 9.99999F Ls,Lp 0.00001pF - 9.99999F Ls,Lp 0.00001pF - 9.99999B Q 0.00001 - 9.999999 Q 0.00001 - 9.999999 Q 0.00001 - 9.999999 Q 0.00001 - 9.999999N bc ±0A - ±999.99999 bg ±0A - ±999.99999 Ch ±0A - ±999.99999 Ch ±0A - ±999.9999 Points 201 points, average can be set for each point, each point can be sorted individually Test frequency, AC voltage	equivalence	mode	Series, parallel				
Range Selection	calibration fu	unction	OPEN,SHORT,LOAD				
Trigger Mode	Measured a	verage	1-255 times				
Trigger delay Specific function One-click screenshot, one-click record, embedded help system	Range Selec	ction	AUTO,HOLD				
Specific function One-click screenshot, one-click record, embedded help system	Trigger Mod	е	Continuous, single				
Range Configurat Ro 100mΩ,1Ω,10Ω,20Ω,50Ω,100Ω,200Ω,500Ω,1kΩ,2kΩ,5kΩ,10kΩ,20kΩ,50kΩ,100kΩ Fast: 2.5ms Measuring time (ms/time) {Frequency ≥ 100kHz} Frequency ≥ 100kHz} Single	Trigger dela	у	0-60s				
Configural Neasuring time (ms/time) (Frequency ≥ 100kHz) 10Ω,20Ω,50Ω,100Ω,200Ω,500Ω,1kΩ,2kΩ,5kΩ,10kΩ,20kΩ,50kΩ,100kΩ Fast: 2.5ms Medium: 90ms Slow: 220ms Maximum acuracy 0.05% (refer to specifications) Measurement display range a 1×10 ⁻¹⁸ ; E 1×10 ⁻¹⁸ Cs,Cp 0.00001pF - 9.99999 F Ls,Lp 0.00001 - 9.99999 F Ls,Lp 0.00001 - 9.99999 P Q 0.00001 - 9.99999 P Q 0.00001 - 9.99999 9 R,Rs,Rp,X,Z,Roc 0.001mΩ - 99.9999MΩ G,B,Y 0.00001 μs - 99.9999 S Vpc ±0.4 - ±999.99999 S 4 0.4 - ±999.99999 P 4 0.4 - ±999.9999999 P 4 0.4 - ±999.99999 P 4 0.4 - ±999.99999 P 4 0.4 - ±999.99999 P 4 10.4 - ±999.99999 P 4 10.4 - ±999.99999 P 5 10.4 - ±999.99999 P 5 2.1 ±159 - 3.14159 6 p 6 p 1.5 ±16 ±16 ±16 ±16 ±16 ±16 ±16 ±16 ±16 ±16	specific fund	tion	One-click screenshot, one-click record, embedded help system				
Measuring time (ms/time) {Frequency ≥ 100kHz} Fast: 2.5ms Medium: 90ms Slow: 220ms Maximum accuracy 0.05% (refer to specifications) Measurement display range a 1×10 ⁻¹⁸ ; E 1×10 ¹⁸ Cs,Cp 0.00001pF - 9.99999F Ls,Lp 0.00001μF - 9.99999 Q 0.00001 - 9.99999 Q 0.0001mΩ - 99.9999MΩ G,B,Y 0.00001μs - 99.9999 V _{DC} ±0V - ±999.9999N I _{DC} ±0A - ±999.9999A θ _r -3.14159 - 3.14159 θ _d -179.999° - 179.999° Δ% ± (0.000% - 999.9%) 201 points, average can be set for each point, each point can be sorted individually Test frequency, AC voltage, AC current, DC BIAS voltage, DC BIAS current, with dielectric constant test function based on the parameter of each point in this list Sequential SEQ: When triggered once, measurements are taken at all scan points, /EOM/INDEX is output only once Step STEP: performs one scan point measurement per trigger, outputs /EOM/INDEX for each point, but list scan comparator result is only output at the last /EOM Scanning 1.Multiple copy functions for both scanning and test parameters 2.Time delay can be set for each scanning point Dielectric Material Testing Solutions Each scanning point can	Range	LCR					
Measuring time (ms/time) (Frequency ≥ 100kHz) Medium: 90ms Maximum accuracy 0.05% (refer to specifications) Measurement display range 1×10 ⁻¹⁸ ; E 1×10 ⁻¹⁸ Cs,Cp 0.00001pF - 9.99999F Ls,Lp 0.00001pF - 9.99999H D 0.00001 - 9.99999 Q 0.00001 - 9.99999 R,Rs,Rp,X,Z,R _{DC} 0.001mΩ - 99.9999MΩ G,B,Y 0.00001 μs - 99.9999V I _{DC} ±0V - ±999.9999V θ _c ±0.4 ±999.9999A θ _c -3.14159 - 3.14159 θ _d -179.999° - 179.999° Δ% ± (0.000% - 999.9%) Points 201 points, average can be set for each point, each point can be sorted individually Test frequency, AC voltage, AC current, DC BIAS voltage, DC BIAS current, with dielectric constant test function based on the parameter of each point in this list Multifunction parameter Sequential SEQ: When triggered once, measurements are taken at all scan points, //EOM/INDEX is output only once Step STEP: performs one scan point measurement per trigger, outputs /EOM/INDEX for each point, but list scan comparator result is only output at the last /EOM Multifunction parameter 1.Multiple copy functions for both scanning and test parameters Scent features	Configurat	R _{DC}	$10\Omega,20\Omega,50\Omega,100\Omega,200\Omega,500\Omega,1k\Omega,2k\Omega,5k\Omega,10k\Omega,20k\Omega,50k\Omega,100k\Omega$				
Measurement display range a 1×10 ⁻¹⁸ , E 1×10 ⁻¹⁶ Cs,Cp 0.00001pF - 9.99999F Ls,Lp 0.00001µH - 99.9999WH D 0.00001 - 9.99999 Q 0.0001πΩ - 99.9999MΩ G,B,Y 0.0001µs - 99.9999M V _{DC} ±0V - ±999.9999V I _{DC} ±0A - ±999.9999A Θ _q -3.14159 - 3.14159 Θ _q -179.999° - 179.999° Δ% ± (0.000% - 999.9%) Zo10 points, average can be set for each point, each point can be sorted individually Test frequency, AC voltage, AC current, DC BIAS voltage, DC BIAS current, with dielectric constant test function based on the parameter of each point in this list Multifunction parameters Trigger Mode Multifunction parameters Trigger Mode Trigger Mode 1.5 Equential SEQ: When triggered once, measurements are taken at all scan points, /EOM/INDEX is output only once Sequential SEQ: When triggered once, measurement per trigger, outputs /EOM/INDEX for each point, but list scan comparator result is only output at the last /EOM Multiple copy functions for both scanning and test parameters 2. Time delay can be set for each scanning point Dielectric constant Dielectric Material Testing Solutions Each scanning point can measure up to four test para	•	` ,	Medium: 90ms				
Cs,Cp 0.00001pF - 9.99999F Ls,Lp 0.00001μH - 99.99999kH D 0.00001 - 9.99999 Q 0.00001 - 9.99999 MΩ R,Rs,Rp,X,Z,R _{Dc} 0.0001μs - 99.9999MΩ G,B,Y 0.00001μs - 99.99998 V _{Dc} ±0V - ±999.9999V I _{Dc} ±0A - ±999.9999A θ _r -3.14159 - 3.14159 θ _q -179.999° - 179.999° Δ% ± (0.000% - 999.9%) 201 points, average can be set for each point, each point can be sorted individually Test frequency, AC voltage, AC current, DC BIAS voltage, DC BIAS current, with dielectric constant test function based on the parameter of each point in this list Sequential SEQ: When triggered once, measurements are taken at all scan points, /EOM/INDEX is output only once Step STEP: performs one scan point measurement per trigger, outputs /EOM/INDEX for each point, but list scan comparator result is only output at the last /EOM 1.Multiple copy functions for both scanning and test parameters Dielectric constant Dielectric Material Testing Solutions Each scanning point can measure up to four test parameters, each parameter can be set upper and lower limits, all test parameters are qualified to output PASS signal,	Maximum ad	ccuracy	0.05% (refer to specifications)				
Ls,Lp 0.00001μ - 99.9999kH D 0.00001 - 9.99999 Q 0.0001 - 99.99999 R,Rs,Rp,X,Z,R _{Dc} 0.0001 μs - 99.9999MΩ G,B,Y 0.00001 μs - 99.99998 $\frac{1}{100}$	Measureme	nt display range	a 1×10 ⁻¹⁸ ; E 1×10 ¹⁸				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Cs,Cp		0.00001pF - 9.99999F				
Q 0.00001 - 99999.9 R,Rs,Rp,X,Z,R _{DC} 0.001mΩ - 99.9999MΩ G,B,Y 0.00001μs - 99.99998 V _{DC} ±0V - ±999.9999V I _{DC} ±0A - ±999.9999A Θ _r -3.14159 - 3.14159 Θ _d -179.999° - 179.999° Δ% ± (0.000% - 999.9%) Points 201 points, average can be set for each point, each point can be sorted individually Test frequency, AC voltage, AC current, DC BIAS voltage, DC BIAS current, with dielectric constant test function based on the parameter of each point in this list Sequential SEQ: When triggered once, measurements are taken at all scan points, /EOM/INDEX is output only once Step STEP: performs one scan point measurement per trigger, outputs /EOM/INDEX for each point, but list scan comparator result is only output at the last /EOM 1.Multiple copy functions for both scanning and test parameters 2.Time delay can be set for each scanning point Each scanning point can measure up to four test parameters, each parameter can be set upper and lower limits, all test parameters are qualified to output PASS signal,	Ls,Lp		0.00001µH - 99.9999kH				
R,Rs,Rp,X,Z,R _{DC} 0.001mΩ - 99.9999MΩ G,B,Y 0.00001μs - 99.9999S V _{DC} ±0V - ±999.9999V d _{DC} ±0A - ±999.9999A θ _f -3.14159 - 3.14159 θ _d -179.999° - 179.999° Δ% ± (0.000% - 999.9%) 201 points, average can be set for each point, each point can be sorted individually Test frequency, AC voltage, AC current, DC BIAS voltage, DC BIAS current, with dielectric constant test function based on the parameter of each point in this list Sequential SEQ: When triggered once, measurements are taken at all scan points, //EOM/INDEX is output only once Step STEP: performs one scan point measurement per trigger, outputs /EOM/INDEX for each point, but list scan comparator result is only output at the last /EOM 1.Multiple copy functions for both scanning and test parameters 2.Time delay can be set for each scanning point 1.Multiple copy functions for both scanning point 2.Time delay can be set for each scanning point 2.Time delay can be set for each scanning point 3. Each scanning point can measure up to four test parameters, each parameter can be set upper and lower limits, all test parameters are qualified to output PASS signal,	D		0.00001 - 9.99999				
Comparator Co	Q		0.00001 - 99999.9				
$\begin{array}{c c c c} V_{DC} & \pm 0V - \pm 999.9999V \\ \hline I_{DC} & \pm 0A - \pm 999.9999A \\ \hline \theta_r & -3.14159 - 3.14159 \\ \hline \theta_d & -179.999^\circ - 179.999^\circ \\ \hline \Delta\% & \pm & (0.000\% - 999.9\%) \\ \hline \\ & & & & & & & & & & & & & & & & &$	R,Rs,Rp,X,Z	Z,R _{DC}	0.001 m Ω - 99.9999 M Ω				
Loc ±0A - ±999.9999A Or -3.14159 - 3.14159 Odd -179.999° - 179.999° Δ% ± (0.000% - 999.9%) Description 201 points, average can be set for each point, each point can be sorted individually Test frequency, AC voltage, AC current, DC BIAS voltage, DC BIAS current, with dielectric constant test function based on the parameter of each point in this list Sequential SEQ: When triggered once, measurements are taken at all scan points, /EOM/INDEX is output only once Step STEP: performs one scan point measurement per trigger, outputs /EOM/INDEX for each point, but list scan comparator result is only output at the last /EOM 1.Multiple copy functions for both scanning and test parameters 2.Time delay can be set for each scanning point Dielectric constant Dielectric Material Testing Solutions Each scanning point can measure up to four test parameters, each parameter can be set upper and lower limits, all test parameters are qualified to output PASS signal,	G,B,Y		0.00001µs - 99.9999S				
Comparator	V_{DC}		±0V - ±999.9999V				
Comparator Points Foints Foints Points Points 201 points, average can be set for each point, each point can be sorted individually Test frequency, AC voltage, AC current, DC BIAS voltage, DC BIAS current, with dielectric constant test function based on the parameter of each point in this list Sequential SEQ: When triggered once, measurements are taken at all scan points, /EOM/INDEX is output only once Step STEP: performs one scan point measurement per trigger, outputs /EOM/INDEX for each point, but list scan comparator result is only output at the last /EOM 1.Multiple copy functions for both scanning and test parameters 2. Time delay can be set for each scanning point Dielectric Constant Dielectric Material Testing Solutions Each scanning point can measure up to four test parameters, each parameter can be set upper and lower limits, all test parameters are qualified to output PASS signal,	I_{DC}		±0A - ±999.9999A				
## (0.000% - 999.9%) Points Points Points Points Points Points Points Points Parameters Parameters Parameters Prigger Mode Trigger Mode Other features Dielectric constant Dielectric constant Dielectric constant Dielectric constant Each scanning point can be set for each point, each point can be sorted individually Test frequency, AC voltage, AC current, DC BIAS voltage, DC BIAS current, with dielectric constant test function based on the parameter of each point in this list Sequential SEQ: When triggered once, measurements are taken at all scan points, /EOM/INDEX is output only once Step STEP: performs one scan point measurement per trigger, outputs /EOM/INDEX for each point, but list scan comparator result is only output at the last /EOM 1.Multiple copy functions for both scanning and test parameters 2.Time delay can be set for each scanning point Dielectric Constant Dielectric Material Testing Solutions Each scanning point can measure up to four test parameters, each parameter can be set upper and lower limits, all test parameters are qualified to output PASS signal,	θ_{r}		-3.14159 - 3.14159				
Points 201 points, average can be set for each point, each point can be sorted individually Test frequency, AC voltage, AC current, DC BIAS voltage, DC BIAS current, with dielectric constant test function based on the parameter of each point in this list Sequential SEQ: When triggered once, measurements are taken at all scan points, /EOM/INDEX is output only once Step STEP: performs one scan point measurement per trigger, outputs /EOM/INDEX for each point, but list scan comparator result is only output at the last /EOM 1.Multiple copy functions for both scanning and test parameters 2.Time delay can be set for each scanning point Dielectric constant Dielectric Material Testing Solutions Each scanning point can measure up to four test parameters, each parameter can be set upper and lower limits, all test parameters are qualified to output PASS signal,	θ_{d}		-179.999° - 179.999°				
Test frequency, AC voltage, AC current, DC BIAS voltage, DC BIAS current, with dielectric constant test function based on the parameter of each point in this list Sequential SEQ: When triggered once, measurements are taken at all scan points, /EOM/INDEX is output only once Step STEP: performs one scan point measurement per trigger, outputs /EOM/INDEX for each point, but list scan comparator result is only output at the last /EOM 1.Multiple copy functions for both scanning and test parameters 2.Time delay can be set for each scanning point Dielectric constant Dielectric Material Testing Solutions Each scanning point can measure up to four test parameters, each parameter can be set upper and lower limits, all test parameters are qualified to output PASS signal,	Δ%		± (0.000% - 999.9%)				
Parameters With dielectric constant test function based on the parameter of each point in this list		Points	201 points, average can be set for each point, each point can be sorted individually				
Multifunction parameter list Step STEP: performs one scan point measurement per trigger, outputs /EOM/INDEX for each point, but list scan comparator result is only output at the last /EOM Other features Other features Dielectric constant Dielectric constant Dielectric Material Testing Solutions Each scanning point can measure up to four test parameters, each parameter can be set upper and lower limits, all test parameters are qualified to output PASS signal,	parameter list	parameters	with dielectric constant test function based on the parameter of each point in this				
Step STEP: performs one scan point measurement per trigger, outputs /EOM/INDEX		Trigger Mode	The state of the s				
Other features 2.Time delay can be set for each scanning point Dielectric constant Dielectric Material Testing Solutions Each scanning point can measure up to four test parameters, each parameter can be set upper and lower limits, all test parameters are qualified to output PASS signal,							
Each scanning point can measure up to four test parameters, each parameter can be comparator set upper and lower limits, all test parameters are qualified to output PASS signal,		Other features	· · · ·				
comparator set upper and lower limits, all test parameters are qualified to output PASS signal,		Dielectric constant	-				
otherwise output 17th signal, the laugition in the appearance limits are set.		comparator					

I. TH2848 Series Impedance Analyzer

	Scanning	g Points	Points 51, 101, 201, 401, 801 are optional			
	Results Display		Extreme values for each parameter and the scanned parameter value at the point where the cursor is located with the corresponding test parameter value			
	Piezoelectric testing		Piezoelectric device and piezoelectric material testing solutions, integrated piezoelectric admittance circle function			
	scanning track		1-4 test parameters can be selected arbitrarily, and the scanning curve can be divided into one screen, two screens and four screens.			
Graphic	Display range		Real-time automatic, locked			
Scanning	coordinate scale		Logarithmic, linear			
	Scanning parameters		Frequency, AC Voltage, AC Current, DCV BIAS/DCI BIAS			
	trigger	Single	Trigger manually once, one scan from start to finish is completed, the next trigger signal starts a new scan			
	method	Sequential	Infinite loop scanning from start to finish			
	Results	Saving	Graphics, documentation			
	Bin Stag	ing	10Bin,PASS,FAIL			
	Bin deviation setting		Deviation value, percent deviation value, off			
	Bin mod	е	Tolerance, continuous			
	Bin Cou	nt	0-99999			
comparator	BIN Judgement		Up to four parameters can be set for the limit range. If the results of the four test parameters fall within the set range, the corresponding BIN number is displayed. If it exceeds the maximum BIN number range set, it displays FAIL. Test parameters without upper and lower limits set will be automatically ignored for BIN judgement.			
	PASS/FAIL Indication		If it meets Bin1-10 criteria, the PASS light on the front panel lights up; otherwise, the FAIL light is illuminated.			
Data Cache			201 measurement results can be batch-read.			
store call	Internal		The instrument has 8GB of built-in storage space, after removing the system occupancy, the user can use about 6GB of space.			
	External	USB	Test setup files, screenshot graphics, record files			
Keyboard Lo	ock		Lockable front panel keys			
	USB HOST		2 USB HOST ports, can be connected to the mouse, keyboard, U disk can only be used one at a time			
	USB DEVICE		Universal Serial Bus socket, small Class B (4 contact positions); compliant with USB TMC-USB 488 and USB2.0, female connector is used to connect an external controller.			
Interfaces	LAN		10/100M Ethernet, 8-pin, two speeds adaptive			
	HANDLER		For Bin Staging Signal Output			
	GPIB		Standard			
	RS232C		Standard 9-pin, Crossed			
	RS485		Standard			
Power-on warm-up time		ne	60 minutes.			
Input Voltage			100-120VAC/198-242VAC selectable, 47-63Hz			
Power supply power			Not less than 130VA			
Dimensions (WxHxD) mm) mm	430x177x265			
weights			11kg			