

# TWO IN ONE

Digital Oscilloscope & Transistor Tester



Transistor  
Detection



PWM Square  
Wave Output



Hidden  
Folding Stand



2.4" TFT  
HD Display



## FEATURES OF DIGITAL OSCILLOSCOPE



- Real-time sampling rate of **2.5MS/s** & **200kHz** bandwidth
- AUTO**, One click to display the measured waveform
- Trigger Function (**Single, Normal, Automatic**)
- Up to  **$\pm 400V$**  voltage signal
- 80kHz / 5.0V PWM** wave test signal source with adjustable duty cycle

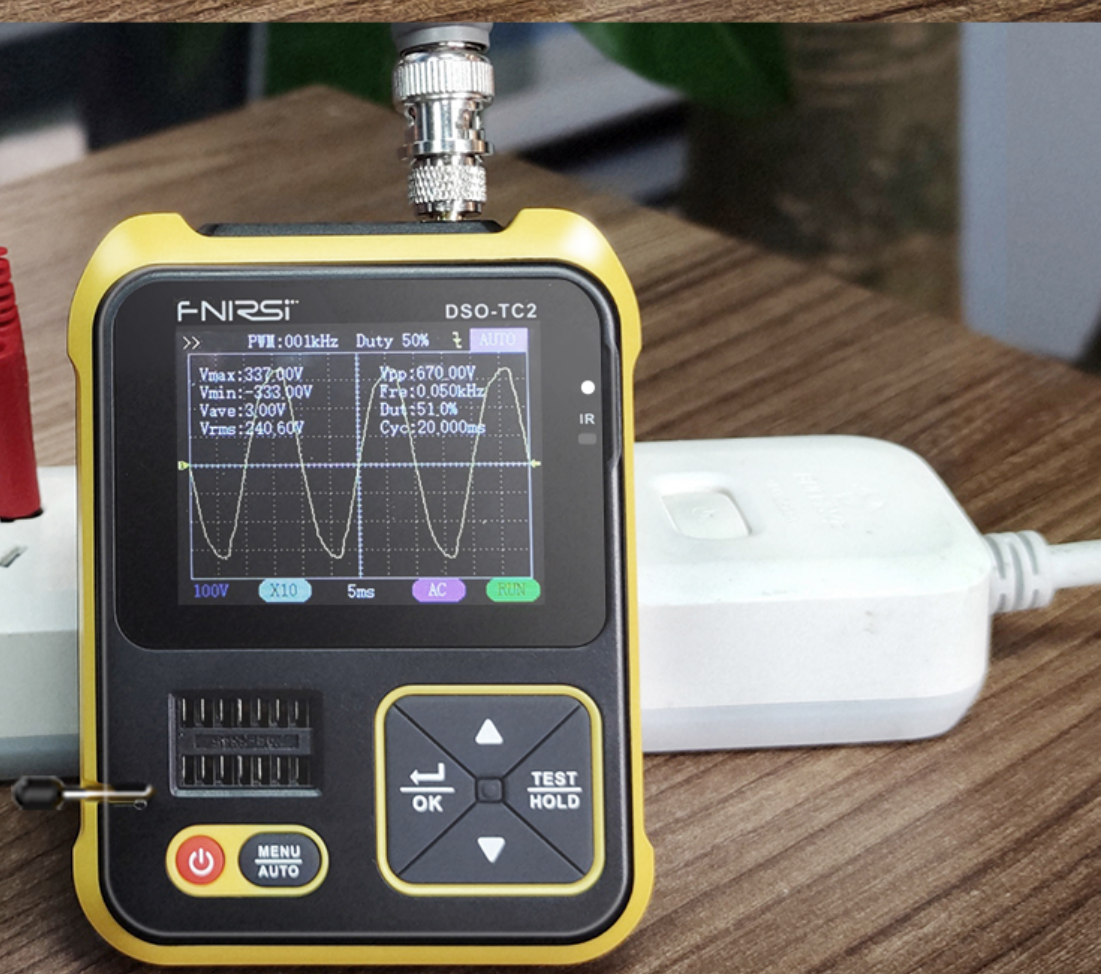




**PWM  
SIGNAL OUTPUT**



**220V MAINS  
DETECTION**





## VARIOUS WAVEFORM DETECTION

## FEATURES OF TRANSISTOR TESTER

- Automatically identify and measure various **transistors**. Including NPN and PNP transistors, N-channel and P-channel field effect transistors, junction field effect transistors, diodes, double diodes, thyristors, etc., and passive components such as **resistors, inductors, capacitors**, etc.
- Automatic detection of **pin** definitions
- Automatically parse the **infrared code** of the NEC protocol
- Other Functional Modes: including circuit **continuity test**, 0~16V input **voltage** measurement, **PWM** output, 0~24V **Zener diode** measurement, **DS18B20** temperature sensor measurement, **DHT11** temperature and humidity sensor measurement, etc.



## CAPACITANCE DETECTION



## RESISTANCE DETECTION



## INDUCTANCE DETECTION



## TRIODE DETECTION



## N-E-MOS DETECTION



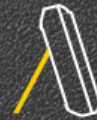
## 0-16V VOLTAGE DETECTION





## INTEGRATED HIDDEN STAND

Better viewing angle doubles efficiency



Standing  
Posture



Rotate 90  
Degrees



## 2.4" TFT FULL COLOR HD DISPLAY

320\*240 resolution, data at a glance

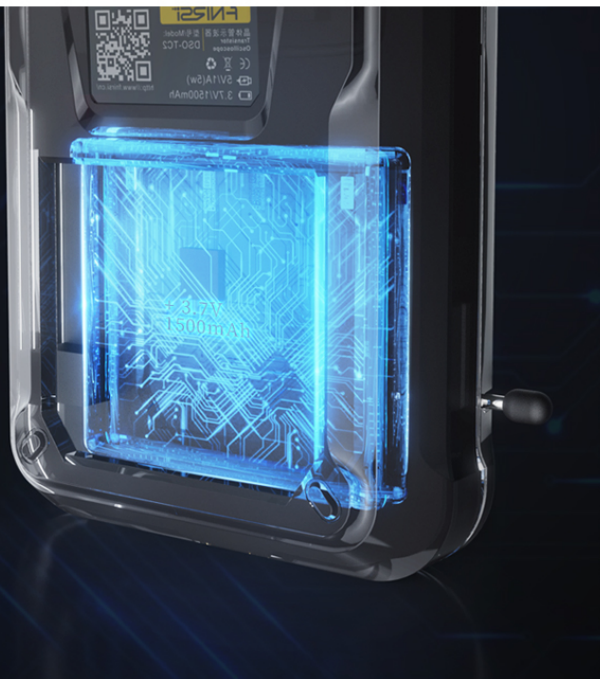


Adjustable  
Buzzer



Adjustable  
Backlight





# POLYMER LITHIUM BATTERY

High-density polymer lithium battery, Safer, More durable



**240 MIN**  
Continuous Working



**Type-C**  
Power cycle



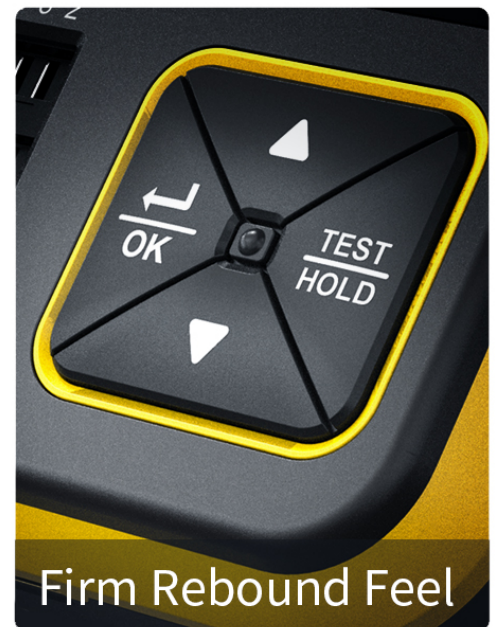
## «« PERFECT DETAIL »»



ABS Shockproof Shell



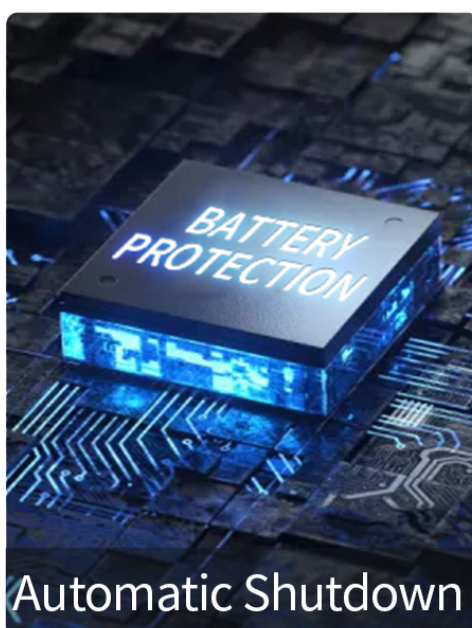
Anti-slip Design



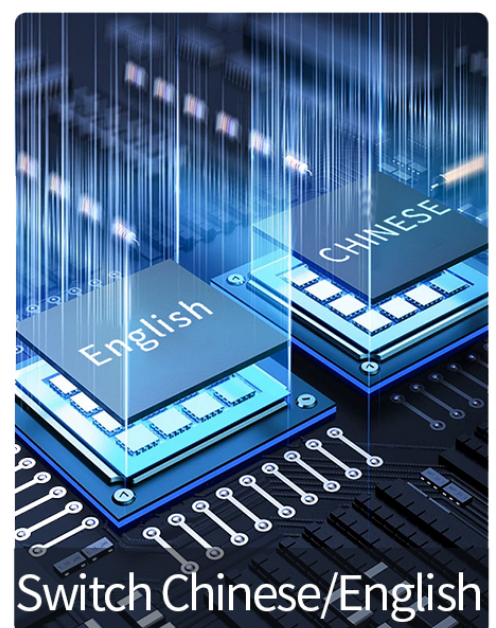
Firm Rebound Feel



Type-C Charging



Automatic Shutdown



Switch Chinese/English

# <<< BUTTON FUNCTION >>>





# <<< MULTIPLE VIEWS >>>



# «« SPECIFICATIONS »»

## Digital Oscilloscope

Real Time Sampling Rate	2.5MS/s
Analog Band Width	0 ~200kHz
Input Resistance	1M $\Omega$
Coupling Mode	AC/DC
Test Voltage Range	1:1 probe: 80Vpp ( $\pm$ 40V) 10:1 probe: 800Vpp ( $\pm$ 400V)
Vertical Sensitivity	10mV/Div ~ 10V/Div (in 1-2-5 increments)
Vertical displacement	Adjustable, with indication
Horizontal time base range	10 $\mu$ s/Div ~ 500s/Div (in 1-2-5 increments)
Trigger mode	Auto/Normal/Single
Trigger type	Rising edge, falling edge
Trigger level	Adjustable, with indication
Waveform freeze	Yes (HOLD function)
Automatic measurement	Maximum, minimum, average, rms, peak-to-peak, frequency, period, duty cycle
PWM output	FRQ: 0~80KHz, Duty cycle: 0~100%, Amplitude: 5.0V

# TRANSISTOR TESTER

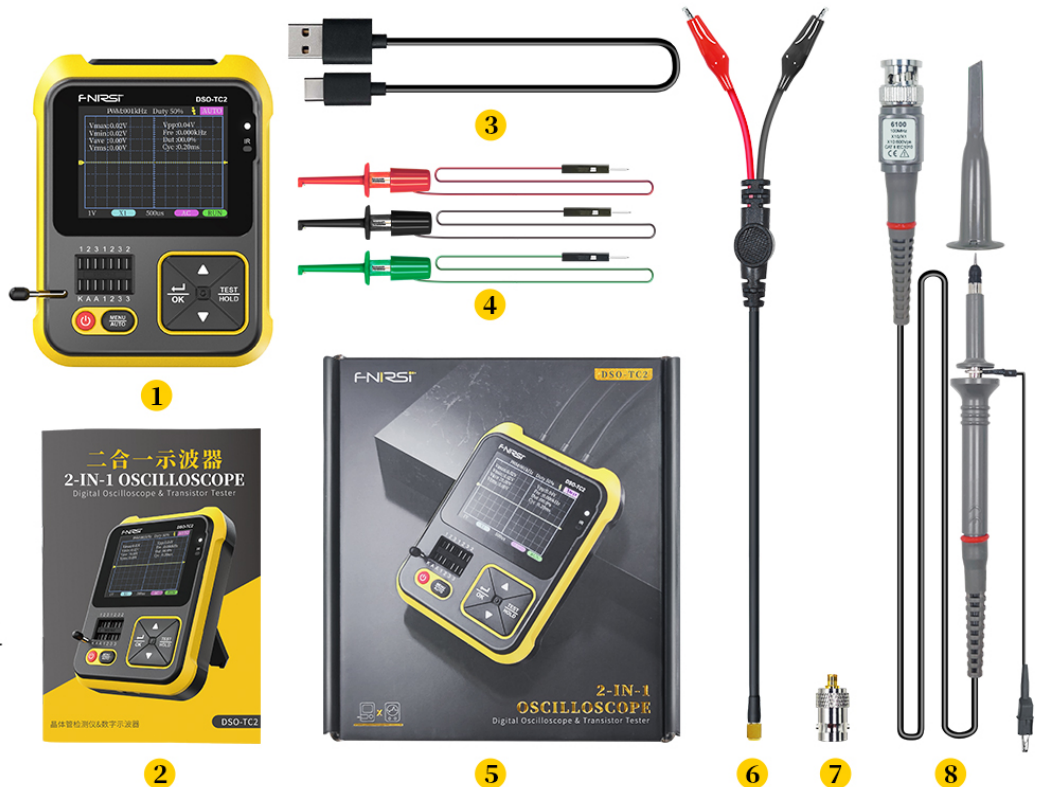
Category	Scope	Technical Parameter
Triode	*	Magnification hfe, base-emitter voltage $U_{be}$ , $I_c/I_e$ , collector-emitter reverse cut-off current $I_{ceo}$ , $I_{ces}$ , protection diode forward voltage drop $U_f$
Diode	Forward voltage drop <5V	Forward Voltage Drop, Junction Capacitance, Reverse Leakage Current
Zener diode	0.01~4.5V	(1-2-3 test area) forward voltage drop, reverse breakdown voltage
	0.01~24V	(K-A-A test area) reverse breakdown voltage
FET	JFET	Gate capacitance $C_g$ , drain current $I_d$ at $V_{gs}$ , protection diode forward voltage drop $U_f$
	IGBT	Drain current $I_d$ at $V_{gs}$ , protection diode forward voltage drop $U_f$
	MIOSTET	Turn-on voltage $V_t$ , gate capacitance $C_g$ , drain-source resistance $R_{ds}$ , protection diode forward voltage drop $U_f$
SCRS	Turn-on voltage <5V, gate trigger current <6mA	Gate voltage
Triac		
Capacitance	25pF~100mF	Capacitance value, loss factor $V_{loss}$
Resistance	0.01 $\Omega$ ~ 50M $\Omega$	Resistance
Inductance	10uH~1000uH	Inductance value, DC resistance
Battery	0.1~4.5V	Voltage value, positive and negative polarity
Input voltage	0~16V	Voltage value
DS18B20	*	Temperature
DHT1	*	Humidity
PWM output	1.5kHz~9.99MHz	*
Infrared remote control decoding	NEC protocol infrared code	Display user code and data code, and display the corresponding infrared waveform

## Basic Parameters

Model	DSO-TC2
Display	2.4 inch TFT color screen, LED backlight
Powered by	1500mAh rechargeable lithium battery
Charging	USB Type-C, +5V
Size	L79*W31*H103mm
Bracket	Hidden Support frame

## «« PACKING LIST »»

- 1 DSO-TC2 Tester \*1
- 2 User Manual \*1
- 3 Type-C Cable \*1
- 4 Test Book \*3
- 5 Packing Box \*1
- 6 Regular Probe \*1
- 7 Adapters \*1
- 8 P6100 High Voltage Probe \*1





## NOTE!

1. The attenuation ratio of the probe should match the voltage of the signal under test. Please do not measure voltage signals that exceed the maximum range
2. When measuring the signal exceeding the safe voltage, the human body should not touch the exposed metal part of the instrument to avoid electric shock injury
3. Discharge the capacitor before measuring the capacitor, otherwise it may burn the instrument