



# **Multi-function Calibrators**







Metrology

Industry

Research

Tunkia Co., Ltd.

#### **COMPANY PROFILE**

TUNKIA Co., Ltd. stands as a distinguished leader in the realm of electrical calibration and magnetic measurement, offering a comprehensive range of advanced equipment and services to meet the diverse needs of industries worldwide. From metrological calibration to the intricacies of power grid management, industrial testing, and pivotal scientific research endeavors, TUNKIA's products and technologies excel in addressing complex measurement challenges. With a global footprint extending across more than 50 countries and regions, TUNKIA serves a clientele exceeding 30,000 users worldwide, addressing complex measurement challenges with cutting-edge products and technologies.

Founded in 2006, TUNKIA has been at the forefront of the electromagnetic measurement industry for nearly two decades. Presently, the company boasts a 12,000m2 research and development center alongside an 11,000m2 intelligent factory. With a workforce exceeding 400 employees, including 30% dedicated to research and development, TUNKIA allocates 25% of its annual revenue to furthering innovation. This commitment underscores its deep technical expertise and robust product development capabilities.

TUNKIA has currently developed three major product series: Scientific Instruments, General Instruments, and Large-scale Equipment. The Scientific Instruments series aims to domesticate and independently control high-end instruments to break the technology stranglehold. The General Instruments series, based on precision measurement technology, provides various general-purpose testing equipment for power grids and industrial inspection, strengthening industrial quality standards. The Large-scale Equipment series applies intelligent and automated testing technology to high-end manufacturing industries such as new energy, new materials, and sensors, facilitating the advancement of intelligent manufacturing.

TUNKIA is active in domestic technical committees such as the China Metrology Technical Committee on Electromagnetic and Chinese Society for Measurement, as well as international standardization organizations like IEC and IEEE, and has participated in revising a total of 77 standards, including 3 international standards and 18 national standards. In 2022, the company was honored with the National-Level Specialized, Sophisticated, New and Distinctive "Little Giant", making it the sole enterprise in the electromagnetic measurement field to receive this recognition.

In the future, TUNKIA will remain committed to practicality and innovation, delivering internationally acclaimed products. We will collaborate with upstream and downstream partners in the industry chain to establish a robust ecosystem for precision testing and quality control instruments!



#### **HONOR & CERTIFICATION**



Patent application:
36 invention patents
36 utility model patents
17 design patents





Certification of Intellectual Property Management System
ISO9001 Quality Management System Certification
ISO14001 Environmental Management System Certification
Software Enterprise Certification
Three-level Enterprise of Safety Production Standardization

# TH1950 **High-Precision Multi-function Calibrator**



P1 **□** 

# TD18 SERIES Precision Multi-function Calibrator

TD1880 (6.5 digit) /TD1870 (5.5 digit)
TD1860 (4.5 digit) /TD1858 (4.5 digit-portable)
TD1855 (3.5 digit) / TD1850 (3.5 digit)



P3 **□** 

### TD1020 Current Coil



P13 □

# TD1000/TD1050 Clamp Meter Calibration Device



P14□

TD1500 **High-precision DC Testing System** 



P16 □

#### **TH1950**

#### High-precision Multi-function Calibrator

- TH1950 is a new generation of **top-level multi- function calibrator** with a wider calibration range and higher calibration accuracy. It can output AC and DC voltage and current signals with excellent performance and has built-in high-stability standard resistors.
- It can calibrate various series of digital multimeters and other precision electrical measuring instruments, and is widely used in power grids, scientific research, integrated circuit development, high-precision sensor testing and other fields.



- High-precision multi-function signal output
- Calibrate 7.5/8.5 digit multimeters
- Supports AC and DC current expansion output to 120A (with TA1000)
- Excellent output stability, DCV 24h short-term stability ≤1ppm
- Excellent interaction performance
- Supports various value output methods such as touch screen output, button output and rotary knob output







#### Characteristics

| Specifications | Range                             | 1-Year Optimal Uncertainty (k=2)      |  |
|----------------|-----------------------------------|---------------------------------------|--|
| DC Voltage     | ±(0 ~ 1100 V)                     | 3.5 ppm + 4 μV @20 V                  |  |
| DC Current     | ± (0 ~ 2.2 A)                     | 35 ppm + 40 nA @20 mA                 |  |
| AC Voltage     | 200 μV ~ 1100 V,10 Hz ~ 1 MHz     | 42 ppm + 50 μV @20 V, 40 Hz~20 kHz    |  |
| AC Current     | 9 μA ~ 2.2 A, 10 Hz ~ 10 kHz      | 103 ppm + 2.5 μA @200 mA, 40 Hz~1 kHz |  |
| Resistance     | 0 ~100 ΜΩ                         | 6.5 ppm @1 kΩ/1.9 kΩ/10 kΩ/19 kΩ      |  |
| Frequency      | 10 Hz ~ 1 MHz                     | 0.005%                                |  |
| Interfaces     | RS 232 × 1, USB × 1, LAN × 1      |                                       |  |
| Touch Screen   | 5-inch                            |                                       |  |
| Size           | 432 mm(W) x 517 mm(D) x 222 mm(H) |                                       |  |

7.5/8.5
digit

# TH1950

# High-precision Multi-function Calibrator

# Front Panel

Large Color Touch Screen:

Full-color LCD screen, supports touch operation, versatile and user-friendly.

**Button Output:** keypad for easy

Control output by pressing

AUX CURPUT OCUPUT OCUPU OPR/STBY. manual operation. 0 0 0 0

**Visual Connection Terminals:** guide cable connections.

Current range can be Wideband Port:

expanded.

Rotary Knob Output: Use the

10% \( \psi \, x10, \div 10) to adjust the Percentage Output: Use the percentage button (10%  $\uparrow$ , value in even decade steps.

direction buttons to adjust the increase or decrease the value. cursor, and use rotary knob to

Accuracy: 100 ppm

• Operating frequency: DC  $\sim$  10 kHz Output current: 120 A (max)
 Short-term stability: 0.001%

function Calibrator can be used with TA1000 Transconductance Current output current range up to 120A. Standard Source to expand the TH1950 High-precision Multi-

**Expand Current** 



TH1950

TA1000

handles make TH1950-

easy to transport.

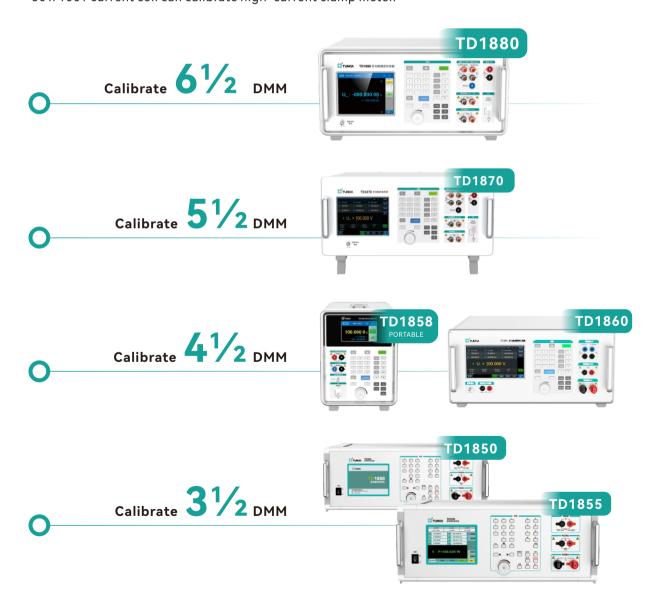
Handles: Rugged

#### TD18 SERIES Precision Multi-function Calibrator

Suitable for calibrating digital multimeter and other precision electrical measuring instruments

TD18 series multi-functional calibrators are high-performance multi-functional calibrator which carefully built by over 20 years of advanced technology accumulation. They are designed by advanced large-scale high-speed integrated circuit, complex programmable logic array, high-power integrated power amplifier and other technologies with the advantages of high integration, stable performance and good reliability.

They can output excellent performance of AC/DC voltage, AC/DC current, AC/DC power, phase, frequency and other electrical parameters with analog resistance, capacitance, thermocouple and thermal resistance, pulse output and other functions and being capable of calibrating 6.5 and below digital multi-meters and other precision electrical measuring instruments. Optimum accuracy can reach 10ppm and equipped with 50T/100T current coil can calibrate high-current clamp meter.



## TD18 SERIES Precision Multifunction Calibrator

- A multi-functional calibrator with wide range, high precision, and with built-in ultra precision AC/DC voltage and current sources.
- It can output excellent electrical parameters such as DC voltage, DC current, DC power, AC voltage, AC current, AC power, phase, frequency, etc.
- It has functions such as simulating resistors, capacitors, thermocouples, thermal resistors, and pulse outputs.
- Can calibrate 6.5 digit digital multimeter and other precision electrical measuring instruments.

| Function                            | TD1850 | TD1855 | TD1858 | TD1860 | TD1870 | TD1880 |
|-------------------------------------|--------|--------|--------|--------|--------|--------|
| DC Voltage Output                   | *      | *      | *      | *      | *      | *      |
| DC Current Output                   | *      | *      | *      | *      | *      | *      |
| DC Resistor Output                  | *      | *      | *      | *      | *      | *      |
| AC Voltage Output                   | *      | *      | *      | *      | *      | *      |
| AC Current Output                   | *      | *      | *      | *      | *      | *      |
| AC/DC Power Output                  | _      | *      | _      | *      | *      | *      |
| Pulse Frequency Output              | *      | *      | *      | *      | *      | *      |
| DC Small Signal<br>Measurement      | ☆      | ☆      | _      | ☆      | _      | _      |
| Clamp Coil                          | ☆      | ☆      | ☆      | ☆      | ☆      | ☆      |
| Capacitive Output                   | _      | _      | _      | _      | _      | ☆      |
| Thermal Resistor Output             | _      | _      | _      | _      | ☆      | ☆      |
| Thermocouple Output and Measurement | _      | _      | ☆      | _      | ☆      | ☆      |
| Calibration Simulation<br>Meter     | *      | *      | *      | *      | *      | *      |
| Remote Control<br>Adjustment Box    | ☆      | ☆      | _      | ☆      | _      | _      |

**★**: Standard function  $\diamondsuit$ : Optional function  $\multimap$ : Not support

| Parameter Overview                                     | TD1850             | TD1855             | TD1858                    | TD1860               | TD1870           | TD1880          |
|--|--------------------|--------------------|---------------------------|----------------------|------------------|-----------------|
| DUT  | 3.5                | 3.5                | 4.5                       | 4.5                  | 5.5              | 6.5             |
| DC Voltage   | 1100 V,500 ppm     | 1100 V, 500 ppm    | +1020, -10.4 V,110<br>ppm | ±1100 V, 85 ppm      | ±1020 V, 52 ppm  | ±1020 V, 11 ppm |
| DC Current   | 22 A/33 A, 500 ppm | 22 A/33 A, 500 ppm | ±10.2 A, 300 ppm          | ±22 A/±33 A, 150 ppm | ±20.5 A, 70 ppm  | ±20.5 A, 87 ppm |
| DC Resistance  | 220 MΩ, 500 ppm    | 220 MΩ, 500 ppm    | 220 MΩ, 500 ppm           | 220 MΩ, 170 ppm      | 1100MΩ, 75 ppm   | 1100 MΩ, 35 ppm |
| AC Voltage   | 1100 V, 500 ppm    | 1100 V, 500 ppm    | 1020 V, 500 ppm           | 1100 V, 500 ppm      | 1020 V, 200 ppm  | 1020 V, 117 ppm |
| AC Current   | 22 A/33 A, 500 ppm | 22 A/33 A, 500 ppm | 10.4 A, 1000 ppm          | 22 A/33 A, 500 ppm   | 20.5 A, 200 ppm  | 20.5 A, 250 ppm |
| Sine Wave Frequency                                    | 1100 Hz, 100 ppm   | 1100 Hz, 100 ppm   | 20 kHz, 100 ppm           | 1500 Hz, 100 ppm     | 500 kHz, 100 ppm | 500 kHz, 50 ppm |
| Touch Screen   | 5.6 inches         | 5.6 inches         | 4.3 inches                | 7.0 inches           | 7.0 inches       | 6.4 inches      |
| Weight   | about 18 kg        | about 19.5 kg      | about 9.5 kg              | about 25 kg          | about 25 kg      | about 24 kg     |
| Size (excluding handles and feet)(W * D * H, unit: mm) | 475*400*190        | 475*400*190        | 210*365*266               | 450*505*203          | 450*505*203      | 440*462*206     |

 $<sup>\</sup>hbox{*For detailed specifications of each model, please contact us for more information: global@tunkia.com}\\$ 





#### **TD1880**

#### **Precision Multi-function Calibrator**

- TD1880 is a multi-function calibrator with wide range and high accuracy, which is applied for calibrating **6.5** digit or less digital multimeters.
- It integrates AC/DC voltage and current standard source, and can output excellent DC/AC voltage, DC/AC current, DC/AC power, phase, frequency, and analog resistance and capacitance etc.



#### **Features**

| DUT                 | 6.5 digit multimeter  |
|---------------------|---|
| DC Voltage          | ±1020V, 11ppm   |
| DC Current          | ±20.5A, 87ppm   |
| DC Resistance       | 1100MΩ, 35ppm   |
| AC Voltage          | 1020V, 117ppm   |
| AC Current          | 20.5A, 250ppm   |
| Sine Wave Frequency | 500kHz, 50ppm   |
| LCD Screen          | 6.4 inches  |
| Weight              | Approx 24kg   |
| Size                | 440*462*206 (mm)  |
| Application         | Calibrate digital multimeters, AC/DC voltmeter, AC/DC ammeter, DC ohmmeter, frequency meter. Calibrate DC power meter, real power meter, phantom power meter, apparent power meter, power frequency phase meter and power factor meter. |



#### **Operation Demo**







VouTube @Tunkia Calibration & Measurement

# TD1870 Multi-function Calibrator

DCV ±1020V, 52ppm

DCI ±20.5A, 70ppm

ACV 1020V, 200ppm

ACI 20.5A, 200ppm

LCD 7.0 inches

Weight 25kg

Size 450\*505\*203 (mm)



# TD1870 Multi-function Calibrator

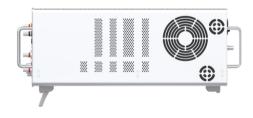
- TD1870 is a multi-function calibrator with wide range and high accuracy, integrates AC/DC voltage and current standard source, can output excellent DC/AC voltage, DC/AC current, DC/AC power, phase, frequency, and analog resistance etc.
- It's applied for calibrating 5.5 digit or less digital multimeters.



#### **Features**

| DUT                 | 5.5 digit multimeter  |  |
|---------------------|---|--|
| DC Voltage          | ±1020V, 52ppm   |  |
| DC Current          | ±20.5A, 70ppm   |  |
| DC Resistance       | 1100MΩ, 75ppm   |  |
| AC Voltage          | 1020V, 200ppm   |  |
| AC Current          | 20.5A, 200ppm   |  |
| Sine Wave Frequency | 500kHz, 100ppm  |  |
| LCD Screen          | 7.0 inches  |  |
| Weight              | Approx 25kg   |  |
| Size                | 450*505*203 (mm)  |  |
| Application         | Calibrate DC voltmeter, DC ammeter, DC ohmmeter, AC voltmeter, AC ammeter, wattmeter, power factor meter, frequency meter, etc. Calibrate RTD temperature meter and clamp meter.and power factor meter. |  |





#### **Operation Demo**



**VouTube** @Tunkia Calibration & Measurement

# TD1860 Multi-function Calibrator

DCV ±1100V, 85ppm

DCI ±22A/±33A, 150ppm

**ACV 1100V, 500ppm** 

ACI 22A/33A, 500ppm

LCD 7.0 inches

Weight 25kg

Size 450\*505\*203 (mm)

# Calibratre 4.5 digit multimeter.



## TD1860 Multi-function Calibrator

- TD1860 is a multi-function calibrator with wide range and high precision, integrates AC/DC voltage source, AC/DC current source, DC resistance source, etc. The DC accuracy class is up to 0.01, and the AC accuracy class is up to 0.05.
- It's applied for calibrating 4.5 digit multimeters, voltmeter, ammeter, ohmmeter, power meter.



## TD1858 Multi-function Calibrator



- TD1858 is a high precision and multi-function calibrator, integrates AC/DC voltage source, AC/DC current source, DC resistance source, etc.
- It's applied for calibrating 4.5 digit multimeters, and is portable and very suitable for on-site calibration.

#### **Features**

| Model               | TD1860               | TD1858                |  |
|---------------------|----------------------|-----------------------|--|
| DUT                 | 4.5 digit multimeter |                       |  |
| DC Voltage          | ±1100V, 85ppm        | +1020, -10.4V, 110ppm |  |
| DC Current          | ±22A/±33A, 150ppm    | ±10.2A, 300ppm        |  |
| DC Resistance       | 220MΩ, 170ppm        | 220MΩ, 500ppm         |  |
| AC Voltage          | 1100V, 500ppm        | 1020V, 500ppm         |  |
| AC Current          | 22A/33A, 500ppm      | 10.4A, 1000ppm        |  |
| Sine Wave Frequency | 1500Hz, 100ppm       | 20kHz, 100ppm         |  |
| LCD Screen          | 7.0 inches           | 4.3 inches            |  |
| Weight              | Approx 25kg          | Approx 9.5kg          |  |
| Size                | 450*505*203 (mm)     | 210*365*266 (mm)      |  |

#### **Operation Demo**





@Tunkia Calibration & Measurement

## TD1855 Calibrator for Multimeter

- TD1855 is a multi-function calibrator, integrates AC/DC voltage source, AC/DC current source, DC resistance source, etc. The accuracy class is 0.05.
- It's applied to calibrating **3.5 digit** multimeter, voltmeter, ammeter, ohmmeter, power meter.



## TD1850 Calibrator for Multimeter



- TD1850 is a multi-function calibrator, integrates AC/DC voltage source, AC/DC current source, DC resistance source, etc. The accuracy class is 0.05.
- It's applied to calibrating **3.5 digit** multimeter, voltmeter, ammeter, ohmmeter, power meter.

#### Features

| Model               | TD1855               | TD1850           |  |
|---------------------|----------------------|------------------|--|
| DUT                 | 3.5 digit multimeter |                  |  |
| DC Voltage          | 1100V, 500ppm        | 1100V, 500ppm    |  |
| DC Current          | 22A/33A, 500ppm      | 22A/33A, 500ppm  |  |
| DC Resistance       | 220MΩ, 500ppm        | 220MΩ, 500ppm    |  |
| AC Voltage          | 1100V, 500ppm        | 1100V, 500ppm    |  |
| AC Current          | 22A/33A, 500ppm      | 22A/33A, 500ppm  |  |
| Sine Wave Frequency | 1100Hz, 100ppm       | 1100Hz, 100ppm   |  |
| LCD Screen          | 5.6 inches           | 5.6 inches       |  |
| Weight              | Approx 19.5kg        | Approx 18kg      |  |
| Size                | 475*400*190 (mm)     | 475*400*190 (mm) |  |

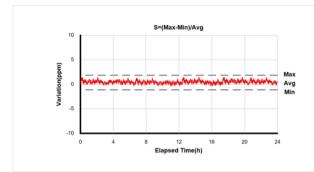
#### **Operation Demo**



VouTube

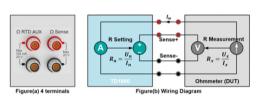
@Tunkia Calibration & Measurement

#### High Stability and Accuracy



- ·TD1880: The DC voltage stability is up to 2 ppm/24h.
- ·TD1870: The DC voltage stability is up to 4 ppm/24h.
- $\cdot$ TD1860: The DC voltage stability is up to 0.005%/24h, and the DC current stability is up to 0.01%/24h.

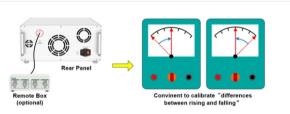
#### 4-terminals Simulated DC resistance



- $\cdot$  Compared with the standard physical resistance box, the analog resistance output has the following characteristics:
- $\ensuremath{\textcircled{\textcircled{\scriptsize 1}}}$  Continuously adjustable, with better adjustment fineness and sensitivity
- ② Smaller size and lighter weight
- ③ No influence of transfer switch error, residual resistance error and contact resistance error.
- $\cdot$ TD1880/TD1870/TD1860 have 2-terminals and 4-terminals resistance wiring mode.
- $\cdot \text{When calibrating the low value resistance, the four wire system wiring mode can effectively eliminate the measurement error caused by the resistance of the test lead and improve the measurement accuracy.}$

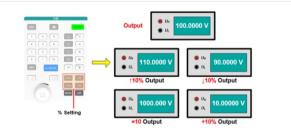
#### **Multiple Output/Adjustment Methods**

#### Remote Adjustable Box (optional)



- $\cdot$ Calibration of the analog pointer meter usually needs to test scale by scale, especially "differences between rising and falling" (the change caused by the rise and fall of the calibration point).
- $\cdot \text{Remote}$  box can realize the coarse and fine adjustment of current or voltage.

#### **Operation Button**



· Use the key "  $\uparrow$  10%"、 " $\downarrow$  10%"、 "×10"、 "÷10" on the front panel, can realize the adjustment of the quantity value, and can also be used to perform the relevant test of linearity.

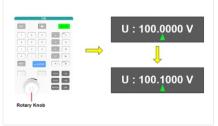
#### **Direct Output**



#### Percentage(%) Setting



#### **Rotary Knob**



# TD1020 Current Coil



■ TD1020 is a series of current coils, it is applied for calibrating clamp Ammeters combined with AC/DC current source.

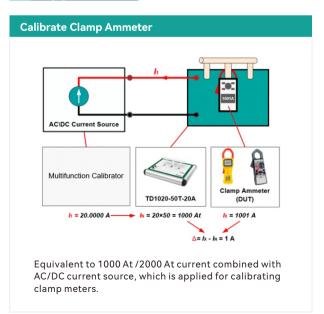
| Equivalent current output | 1000 At / 2000 At    |
|---------------------------|----------------------|
| Max current input         | 22 A rms / 44 A rms  |
| DC accuracy               | 0.3%                 |
| AC accuracy               | 0.3%@50Hz,0.5%@400Hz |
| Frequency                 | DC,45 Hz~400 Hz      |



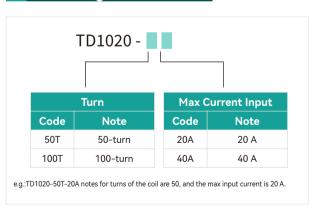
#### Specifications

| M  | odel          | TD1020-50T-20A                                 | TD1020-50T-40A                            | TD1020-100T-20A                             |  |
|--|---------------|--|---|---|--|
| <b>T</b>   | Middle        | 50   | 50  | 100   |  |
| Turns  | Turns Side 25 |  | 25  | 50  |  |
| Max current input  |               | 22 A rms                                       | 44 A rms                                  | 22 A rms                                    |  |
| Continuous output time   |               | <11 A, continuous;<br>>11 A, ≤ 30minutes.      | <22 A, continuous;<br>>22 A, ≤ 30minutes. | < 11 A, continuous;<br>> 11 A, ≤ 30minutes. |  |
| Frequency         DC, 45 Hz ~ 400 Hz         DC, 45 Hz ~ 400 Hz         DC, 45 Hz ~ 400 Hz |               | DC, 45 Hz ~ 65 Hz                              |   |   |  |
| Acc  | uracy         | DC: ±0.3%<br>AC: ±0.3% @ 50 Hz, ±0.5% @ 400 Hz |   |   |  |

#### Application



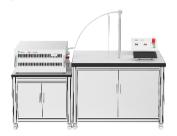
#### Ordering Information



# TD1000/TD1050 Calibration Device for Clamp Meters

• TD1000/TD1050 is a calibration device for clamp meters, integrating AC/DC current source, AC/DC voltage source and resistance source.

| Features             | TD1000                          | TD1050                                  |  |
|----------------------|---------------------------------|---|--|
| Accuracy             | Class 0.05, class 0.1 available | Class 0.05                              |  |
| DC current           | 20 mA ~ 22A (optional)          | 10 mA ~ 1050 A (2100 A is optional)     |  |
| AC current output    | 20 mA ~ 1100 A                  | 10 mA ~ 1020 A (2050 A is optional)     |  |
| DC voltage output    | 20 mV ~ 1100V (optional)        | 20 mV ~ 1100 V (optional)               |  |
| AC voltage output    | 1 V ~ 825 V                     | 1 V ~ 825 V (optional)                  |  |
| Frequency            | 45 Hz ~ 65 Hz                   | 40 Hz ~ 400 Hz                          |  |
| DC resistance output | 10 Ω ~ 11 ΜΩ                    | $10~\Omega \sim 110~M\Omega$ (optional) |  |
| -                    | Two thickness copper rings      |   |  |
| -                    | Remote adjustment (optional)    | AC/DC power output (optional)           |  |



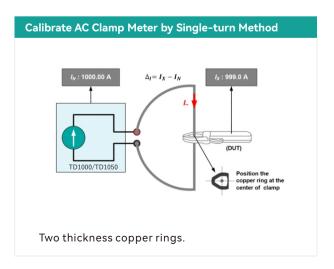
TD1000

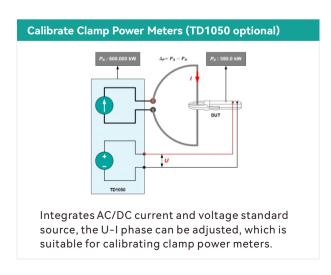


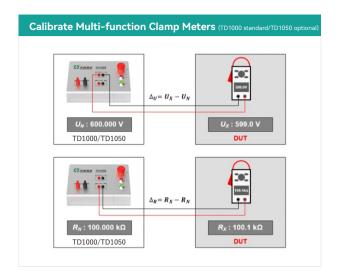
TD1050

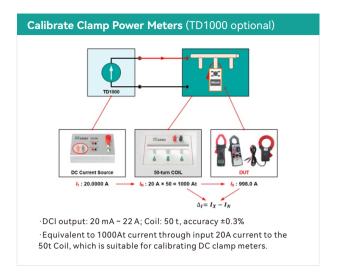
#### **Application**

| Devices<br>Can be<br>Calibrated | Multi-functional Clamp Meter                             | Clamp Current Meter | AC Voltmeter | DC voltmeter | DC resistance meter | Clamp power meter |
|---------------------------------|--|---------------------|--------------|--------------|---------------------|-------------------|
| TD1000                          | ☆  | ★ (AC only)         | *            | ☆            | *                   | _                 |
| TD1050                          | ☆  | *                   | ☆            | ☆            | ☆                   | ☆                 |
|                                 | ★: Standard function ☆: Optional function —: Not support |                     |              |              |                     |                   |



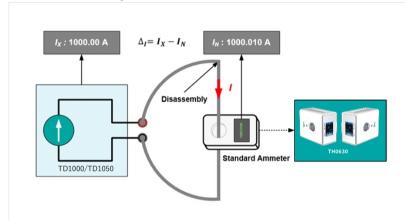






#### **Characteristics**

#### **Convenient Traceability**



#### TD1000

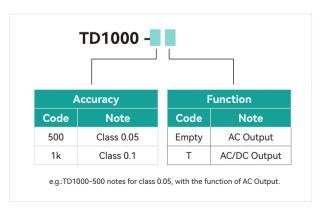
Calibrate the AC current source through accessing the standard ammeter() to the current loop.

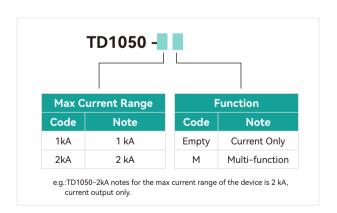
#### TD1050

Calibrate the AC\DC current source through accessing the standard ammeter (TH0630 or TH0530) to the current loop.

Notes:TH0630 Precision Through Core AC Ammeter TH0530 Precision Through Core Ammeter

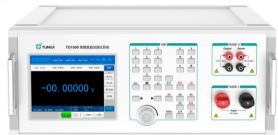
#### Ordering Information





# TD1500 High-precision DC Testing System

- TD1500 is a wide range, high precision, multi-functional DC standard source precision instrument.
- It can directly output DC voltage, current, power and electric energy with high stability and high accuracy.
- The best measurement uncertainty has three specifications of Class 0.01 / Class 0.02 /Class 0.05, which is suitable for verification or calibration of various types of DC measuring instruments.



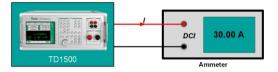
• The technical performance of the equipment is in the leading Class among similar products, and it is widely used in electric power, measurement, military industry, manufacturing, scientific research and other fields to establish DC measurement standards.

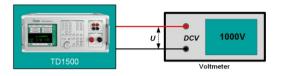
| DC voltage standard source                      | 1 mV ~ 1100 V (1150 V @ electric energy selection) |
|---|--|
| DC current standard source                      | 1 μ A ~33 A / 100 A (optional)                     |
| DC Small signal voltage standard source         | 100 μ V~4.4 V (optional)                           |
| DC small signal voltage measurement function    | 10 μ V ~ 4.4 V (optional)                          |
| A variety of quantity and value output mode     | Standard   |
| Special automatic test software                 | Optional   |
| Support for remote control adjustment output    | Optional   |
| Verification of DC electricity meter            | Functional Option                                  |
| Secondary signal measurement of the transmitter | Functional Option                                  |

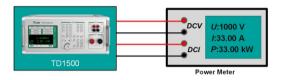
#### **Application**



#### Calibrate DC Electrical Measuring Meter



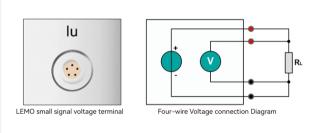




- $\cdot$  DC voltage standard source (DCV) output range: 1 mV  $\sim$  1100 V (power type up to 1150 V)
- $\cdot$  DC current standard source (DCI) output range: 1  $\mu$  A  $^{\sim}$  33 A  $^{\prime}$  110 A (optional)(power type up to 120 A)
- $\cdot$  Class 0.01 specification instrument: suitable for calibrating DC voltmeter and ammeter of Class 0.05 and below, and suitable for calibrating DC power meter of Class 0.1 and below

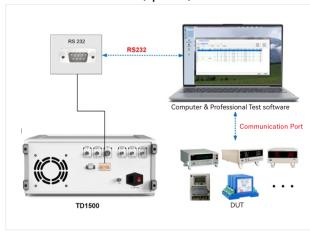
#### Characteristics

#### Four-wire Small Signal Voltage Source



- $\cdot$  Four-wire small signal voltage source: can accurately output  $\pm$  (10  $\mu$  V~4.4 V) small signal voltage signal, as the current input of indirect access DC electricity meter (the shunt specification can be set, and displayed according to its primary current).
- · Scheme value: using the four-wire Kelvin connection mode, and equipped with low thermal potential terminal and wire, compared with the traditional two-wire voltage source, can effectively eliminate the influence of wire resistance, contact potential and thermal potential on the measurement.

#### **Professional Test Software (optional)**



- $\cdot$  Support for test data recording, analysis, management, and certificate export.
- ·Software functions can be customized according to customer needs, and support subsequent software upgrades required by adding new procedures for testing.



Web www.tunkia.cn

Add. NO. 16 Panpan Road, Changsha, Hunan, China

#### **Contact sales**

Tel +86-731-84930888 Fax +86-731-84930990 E-mail global@tunkia.com

#### **Contact service**

Tel +86-731-84930999 E-mail service@tunkia.com

In view of the continuous updating and upgrading of products, in case of any change in the technical indicators here, the actual contract shall prevail.

