

**Product Number: 01**

**Product Name: Advance Smart Trainer Platform**

**Brand: ZerOne**  
**Model: ZT-24801**  
**Origin: China(Assembly by BD)**



(Sample Image)

**SPECIFICATIONS**

**1. Platform (Advanced)**

Embedded OS-based smart learning platform ; Intel® CPU Atom™ Processor ; 1.6GHz, 800MHz FSB, 512KB L2 cache ; 2.1W ultra low-power system, FCBGA package ; Hyper threading and 45nm technologies ; Ethernet, USB and Serial interface ; Touch screen resolution: 800 x 480 ; 124-point connector to connect an experimental module ; Integrated measurement board employing the 3-core CPU ; Installed measurement application software (OS: Microsoft Embedded) ; Multilingual selection and smart touch user interface control ;

Audio and video control functions

**2. Signal input (2-channel)**

1) Oscilloscope

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**2. Signal input (2-channel)**

1) Oscilloscope

Impedance: 1 MΩ/20pF ; Max voltage: ±50Vp-p ; Bandwidth: 4MHz ; Sample rate: 40MS/sec ; ADC resolution: > 10bit ; Voltage DIV: ±10/5/2/1/0.5/0.2/0.1/50mV/20mV ; Time DIV: > 22 times 1us~10s ; Trigger: Auto, Single, Stop Mode ; Memory: Streaming to host

2) Voltmeter & Ampere meter Measurement: AC/DC voltage, current, power(VA) ; Function: Mean value, Peak value, Peak-to-Peak value, Root mean square (RMS) value ; Range: Auto & Manual Mode ( > 9- step 100mV~50V )

Impedance: 1 M $\Omega$ /20pF ; Max voltage:  $\pm$ 50Vp-p ; Bandwidth: 4MHz ; Sample rate: 40MS/sec ; ADC resolution: > 10bit ; Voltage DIV:  $\pm$ 10/5/2/1/0.5/0.2/0.1/50mV/20mV ; Time DIV: > 22 times 1 $\mu$ s~10s ; Trigger: Auto, Single, Stop Mode ; Memory: Streaming to host

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## 3. Signal output (1-channel)

1) Function / Pulse / Arbitrary Generator Impedance: 50 $\Omega$ /200mA ; Amplitude: 200mVpp, 2Vpp, 20Vpp (Max. 20Vpp) ; Frequency: 0.1Hz - 1MHz ; Range: 0.1Hz/1Hz/10Hz/100Hz/1kHz/10kHz/100kHz (7-step) ; Output waveform: Sine, Square, Triangle, Logic, DC Pos(+), DC Neg(-)

2) DC Source Range: 100mV, 1V, 10V ; Voltage Source:  $\pm$ 0 ~ 10V

4. Digital input (digital analyzer / counter) Number of channel: 16 (Int. +Ext.) ; Input voltage: TTL/CMOS ; Max. voltage: 20V ; Frequency: 100kHz ; Trigger mode: Low, high, DC ; Memory: Streaming to host ; Function: BIN (2-bit), OCT (8-bit), DEC (10-bit), HEX (16-bit)

5. Digital output (Signal generator / timer) Number of channel: 16 (Int. +Ext.) ; Output voltage : TTL/CMOS ; Output current: 3mA ; Max. voltage :  $\pm$ 15V ; Output frequency: 100kHz ; Memory : Streaming to host ; Function: BIN (2-bit), OCT (8-bit), DEC (10-bit), HEX (16-bit)

## 6. Relay output

8-relay COM, ; NO/NC (Normally Open/Closed) ; 24VDC / 1A

## 7. Variable power supply

1) 3-channel DC power

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1) 3-channel DC power V1 voltage : DC 0 ~  $\pm$  20V 1A ; V2 voltage : DC 0 ~  $\pm$  20V 1A ; V3 voltage : DC 0 ~  $\pm$  20V 1A

2) 3-phase AC power AC voltage : AC 14Vrms 1A (Resolution: 0.1V) ; Frequency : 1Hz ~ 150Hz (Resolution: 1Hz)

## FEATURES

1. This equipment is all-in-one learning platform designed for smart engineering education.

A total of 11 types of measuring instruments such as an oscilloscope, digital multimeter, DC power supply, AC power supply, and function generator are installed in the platform.

V1 voltage : DC 0 ~ ± 20V 1A ; V2 voltage : DC 0 ~ ± 20V 1A ; V3 voltage : DC 0 ~ ± 20V 1A

2) 3-phase AC power AC voltage : AC 14Vrms 1A  
(Resolution: 0.1V) ; Frequency : 1Hz ~ 150Hz (Resolution:

1Hz) threading and 45nm technologies ; Ethernet, USB and Serial interface ; Touch screen resolution: 800 x 480 ; 124-point connector to connect an experimental module ; Integrated measurement board employing the 3-core CPU ;

2. Basic practices in various engineering fields are possible through the insertion of PCB type experimental modules onto the main unit.

3. Bread Board Module is provided together, so it is possible to practice circuit configuration using actual electric and electronic components.

4. The USB/Serial/Ethernet communication environment enables interfacing with separate other devices and helps achieve the goal of differentiated smart education.

5. A full-color TFT LCD with touch screen provides clear screen view and convenient user interface.

6. The built-in integrated measurement board is equipped with a 3-CORE CPU to enable fast and powerful computational performance.

7. The e-books capable of smart learning can be displayed and utilized in real time on the screen, enabling efficient experimental practices.

8. The multi-lingual support can display each screen menu in various languages.

9. Through the installed circuit design and simulation software, it is possible to draw circuits on the touch screen and simulate various circuits such as electric and electronic circuits, digital and logic circuits, power electronics, semiconductor elements, motor and generator, renewable energy, power conversion, vector control, automobile and electric vehicle, and automation system.

[ N.B: Product specifications are not fixed, product specifications may be changed as per brand models and others things.]