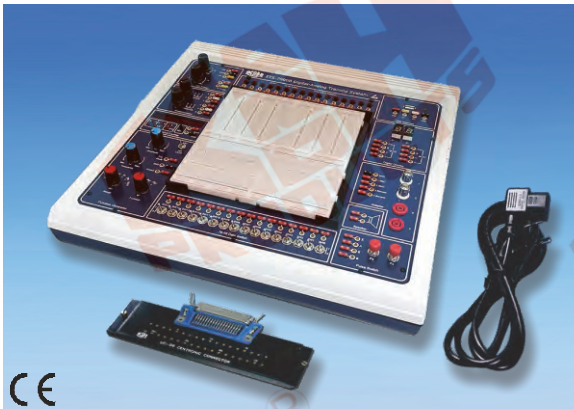




ETS-7000B Digital-Analog Training System



Specifications

1. Solderless breadboard : AD-222
Interconnected with 2712 tie points nickel plated contact, fits all components with DIP sizes and solid wire AWG #22-30 (0.3mm ~ 0.8mm). It can be changed and replaced for different purposes and can be connected with demonstration panel. Therefore, it is very convenient for both teachers and students.
2. DC power supply :
 - (1) Fixed DC output : +5V \pm 10%, 1A.
 - (2) Fixed DC output : -5V \pm 10%, 300mA.
 - (3) Variable DC output : 0V ~ +15V \pm 10%, 500mA.
 - (4) Variable DC output : 0V ~ -15V \pm 10%, 500mA.
3. Potentiometers :
 - (1) Variable resistor VR1 = 1 K Ω (B)
 - (2) Variable resistor VR2 = 100K Ω (B)
4. Function generator
 - (1) Frequency ranges : 0.1 Hz ~ 2 Hz
(6 ranges)
 - 1 Hz ~ 20 Hz
 - 10 Hz ~ 200 Hz
 - 100 Hz ~ 2 KHz
 - 1 KHz ~ 20 KHz
 - 10 KHz ~ 200 KHz
 - (2) Amplitude output
 - Sine wave : 0.1Hz ~ 200KHz, 20Vpp(Max.) ~ 10Vpp(Max.) \pm 10% variable.
 - Triangle wave : 0.1Hz ~ 200KHz, 20Vpp(Max.) ~ 6Vpp(Max.) \pm 10% variable.
 - Square wave : 0.1Hz ~ 200KHz, 20Vpp(Max.) \pm 10% variable.
 - TTL mode : +5V \pm 10%
5. Universal counter :
 - (1) Frequency range : 1Hz~99.999999MHz ; 10Hz~100.000000MHz
 - (2) Period range TH & TL : 0.01 μ s ~ 999999.99 μ s ;
1 μ s ~ 99999999 μ s
 - (3) Input signal : TTL or CMOS level or any level ($V_{min} \geq +2.3V \pm 10%$)
 - (4) Display : 8-digit 7-segment LED display
 - (5) Counter switch : External / internal
6. 16-bit data switch :
When toggle switch is set at "down" position, the output is LO level; on the contrary, it will be HI level while setting at "up" position.
7. Speaker :
2 $\frac{1}{4}$ inch diameter, 8 Ω / 0.5W to be used for load
8. Four channel adaptor :
Both the two banana sockets' and two BNC jacks' point tips are changeable. They are suitable to connect ETS-7000B with peripherals.
9. Two digits of segment LED display :
 - (1) BCD based output display
 - (2) Numerical designs and resultant displays

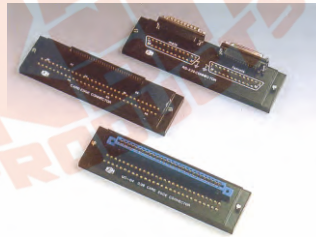


Segment Identification



Expansion Features

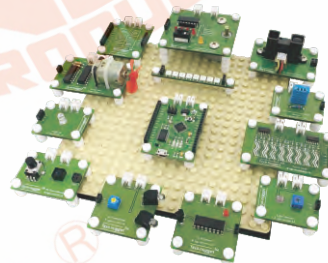
It can perform computer interface experiments by matching universal connector.



10. Two pulse switch (with 2 sets of output: A, \bar{A} , B, \bar{B}) :
2 pcs of push-buttons contain switches Debounce for eliminating the bounce caused by switch from "open" to "close" or from "close" to "open" position.
11. 16-bit LED display :
16 red LEDs separate input terminals, light up at "HI level" input, and turn off at "LO level" input.
12. USB Interface :
Type A USB socket with external tie points (+5V,D-,D+,GND)
13. Universal connector :
 - (1) Standard accessory :
UC-06 Centronic connector
 - (2) Optional accessories :
 - a. UC-01: Card edge connector 2.54mm 62pin
 - b. UC-02: RS-232 connector 25pin D sub connector, male & female
 - c. UC-03: Straight header connector 60pin
 - d. UC-04: Card edge connector 3.96 mm 56pin
14. Other standard accessories :
 - (1) Power cord
 - (2) Pin : 15pcs
 - (3) User manual
 - (4) USB Cable (Type A to Type B)
15. Dimensions : 360mm(W) x 340mm(D) x 101mm(H)
16. Weight : 3kg

Optional : NGT-602 faya-nugget Combo Pack

Exploring Arduino projects with ETS-7000B



1. Main controller : brickNano
2. Modules :

(1) Step Motor	(7) IR Transmitter
(2) IR Distance Sensor	(8) IR Pulse Sensor
(3) Humidity & Temperature Sensor	(9) RGB LED
(4) Touch Slider	(10) DC Motor
(5) Light Sensor	(11) Basic Logic Gates
(6) IR Receiver	(12) Color Sticker

Accessories

Brick Pack / 21*21 Brick Plate / Brick Post Pack / Brick Cap Pack / Micro USB Cable / Power Wire Pack / Signal Wire Pack / Tutorial CD