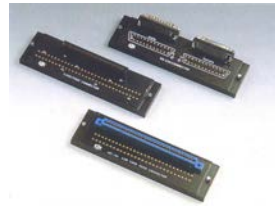




## ETS-7000A Digital-Analog Training System



**Reserve Fixed Holders**  
It's available for universal connectors.



**Expansion Features**  
It can perform computer interface experiments by matching universal connector.

### 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 $\Omega$  (B)
  - (2) Variable resistor VR2 = 100K $\Omega$  (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 $\mu$ s ~ 999999.99 $\mu$ s ;  
1 $\mu$ s ~ 99999999 $\mu$ 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. Eight bits data switches :  
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 1/4 inch diameter, 8 $\Omega$  / 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-7000A with peripherals.
9. Two digits of segment LED display :
  - (1) BCD based output display
  - (2) Numerical designs and resultant displays



Segment Identification

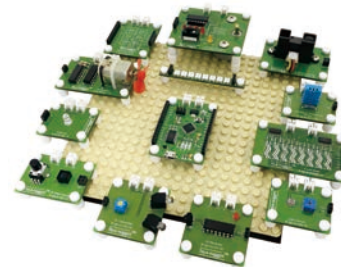


10. Two pulse switch (with 2 sets of output: A,  $\bar{A}$ , B,  $\bar{B}$ ) :  
2 pcs of push-buttons contain switches Debounce for eliminating the bounce caused by switch from "open" to "close" or from "close" to "open" position.
  11. 8 bits LED display:  
Eight red LEDs separate input terminals, light up at "HI level" input, and turn off at "LO level" input.
  12. Universal connector fixed holder:  
Reserving universal connector fixed holder on the panel to connect with various universal connectors :  
Standard accessory :  
UC-06 Centronic connector
- Optional accessories :**
- (1) UC-01 : Card edge connector 2.54mm 62pin
  - (2) UC-02 : RS-232 connector 25pin D sub connector, male & female
  - (3) UC-03 : Straight header connector 60pin
  - (4) UC-04 : Card edge connector 3.96 mm 56pin
13. Other standard accessories:  
(1) Power cord (2) Pin : 6pcs (3) User manual
  14. Dimensions : (325(L) x 250(W) x 95(H))mm
  15. Weight : 4.3kg

### Optional :

### NGT-602 faya-nugget Combo Pack

Exploring Arduino projects with ETS-7000A



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