ETS-7000A  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 ±10%, 1A.
   (2) Fixed DC output : -5V ±10%, 300mA.
   (3) Variable DC output : 0V ~ +15V ±10%, 500mA.
   (4) Variable DC output : 0V ~ -15V ±10%, 500mA.

3. **Potentiometers :**
   (1) Variable resistor VR1 = 1 KΩ (B)
   (2) Variable resistor VR2 = 100KΩ (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.) ±10% variable.
       - Triangle wave : 0.1Hz ~ 200KHz, 20Vpp(Max.) ~ 6Vpp(Max.) ±10% variable.
       - Square wave : 0.1Hz ~ 200KHz, 20Vpp(Max.) ±10% variable.
       - TTL mode : +5V ±10%

5. **Universal counter**
   (1) Frequency range : 1Hz ~ 99.999999 MHz ; 10Hz ~ 100.00000MHz
   (2) Period range TH & TL : 0.01μs ~ 999999.99μs ; 1μs ~ 99999999μs
   (3) Input signal : TTL or CMOS level or any level (Vmin ≥ +2.3Vp ±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 :**
   2¼ inch diameter, 8Ω / 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](image)

10. **Two pulse switch (with 2 sets of output: A, A, B, 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

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**Optionals :**

**NGT-602  faya-nugget Combo Pack**
Exploring Arduino projects with ETS-7000A

1. **Main controller :** brickNano
2. **Modules :**
   (1) Step Motor
   (2) IR Distance Sensor
   (3) Humidity & Temperature Sensor
   (4) Touch Slider
   (5) Light Sensor
   (6) IR Receiver
   (7) IR Transmitter
   (8) IR Pulse Sensor
   (9) RGB LED
   (10) DC Motor
   (11) Basic Logic Gates
   (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