Digital Logic Design and Microcomputers



Universal Microcontroller Trainer (AVR, PIC, 8051)

(EDC-M-310)





DESCRIPTION:

This system is a universal Microcontroller Training System. This contains stand-alone peripheral devices like Graphical LCD, Keypad, DC Motor, Stepper Motor, etc. Trainer main board contains all some basic peripheral devices. Universal device programmer is provided with device mounting option. User can perform experiments on major microcontroller families namely AVR, PIC and 8051.

TECHNICAL DATA:

MAIN BOARD:

- 8-BIT A/D CONVERTER
- 8-BIT D/A CONVERTER
- FOUR 7-SEGMENT DISPLAYS
- 8X MONITOR LEDS
- 2X I2C EEPROM INTERFACE
- 4X4 MATRIX KEYPAD WITH 5-WAY JOYSTICK
- 2X INTERRUPT SOURCE
- 8-BIT DIP SWITCHES
- SERIAL PORT INTERFACE
- USB PROGRAMMER FOR AVR, PIC AND 8051 DEVICES
- INTERFACE CONNECTOR FOR PLUG-IN BOARD (AVR/PIC/8051)

TECHNICAL DATA:

EXTERNAL I/O INTERFACE MODULE (OPTIONAL):

- 128X64 Graphical LCD
- 16X4 Character LCD
- 8X8 Dot Matrix LED
- DC Motor having optical encoder, direction control & PWM control
- Stepper motor with drive circuit
- R/C Servo motor with drive circuit
- Ultrasonic
- IR and PIR Module
- Temperature, Humidity and Light Sensor Module with Relay
- 8-Channel Relay Module

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EXPERIMENTS INCLUDED:

- Trainer Introduction
- Introduction to device families (8051, AVR and PIC)
- Universal Programmer Introduction
- Seven Segment Displays
- 2-Dimensional Key-pad with joystick
- External interrupt and Timers
- A/D Conversion
- D/A Conversion
- I²C EEPROM
- Each External I/O Module is provided with experiment manual and sample code

ACCESSORIES:

• Power Cord, 2mm Patch Cords, 10-pin IDC Cable, Software CD, Experiment Manual.

DIMENSIONS AND WEIGHT:

L x W x H (mm): 350 x 350 x 100

Weight: 2.5kg