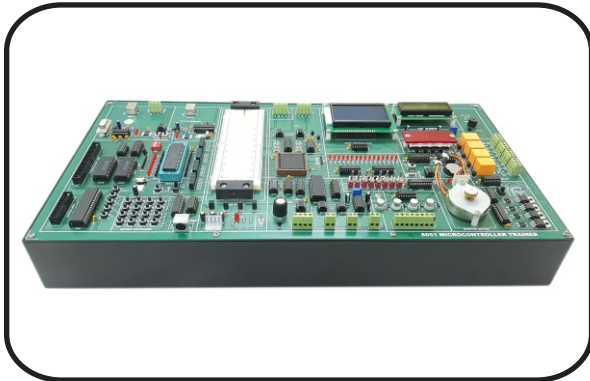


E87-07 89S52 MICROCONTROLLER TRAINER KIT



E87-07 is a single board Microcontroller Trainer Kit based on 8 bit 8051 Microcontroller, which is widely used to train engineers to develop on software/hardware for any industrial process & control. Kit has onboard Interfaces like EPROM, RAM, 8255PPI, LCD, Seven Segment Display, Keyboard Matrix, Relay, Buzzer, ADC, DAC, Stepper Motor, General Purpose Breadboard, Ps2 Keyboard for Man to Machine Interface.

Specifications

● Microcontroller

- ❖ CPU: Atmel 89s52 Microcontroller operating @ 11.0592 MHZ crystal.
- ❖ 40 Pin ZIF socket for Microcontroller.
- ❖ All I/O Lines should be provided in 4 separate 16 pin female connector for Bread board connectivity through single stand wires & 50 PIN FRC connector for external interface.
- ❖ Internal memory: 8K (flash memory).
- ❖ Onboard CPLD Device XC9572 for memory & I/O mapping.
- ❖ On board Reset key.
- ❖ 4 way DIP Switch for Simulating P1 inputs microcontroller lines
- ❖ 8 Led's for Simulating P1 outputs microcontroller lines
- ❖ Should have On board 5 keys for INT0,INT1,T0,T1,T2 microcontroller.
- ❖ On board USB based ISP Programmer module for burning the controller.
- ❖ On board RS-232 interface provided at 9 Pin D-type connector
- ❖ On board RS-485 interface provided at KRE connector

- ❖ On board USB interface provided at USB connector

● Memory

- ❖ User Data RAM area: 32KB.
- ❖ User Program / Data RAM area: 32KB.
- ❖ Memory mapped I/O Area.

● Onboard Applications

- ❖ 16 LED's to display Digital Output.
- ❖ 8 Switches to give Logic Level Input.
- ❖ 600 Tie Points Bread Board Area provided
- ❖ Piezoelectric Buzzer.
- ❖ Four nos. of 12V SPDT Relay output terminated at 3 pin KRE connector.
- ❖ 4 digit seven segment displays.
- ❖ 16 x 2 Alphanumeric LCD display Module/ 128 x 64 Graphic LCD display interface.
- ❖ PS/2 keyboard port Interface
- ❖ I²C based DS1307 RTC IC interface with Battery Backup.
- ❖ 4 x 4 Matrix Key Interface.
- ❖ On board 8 Ch. 8bit ADC having 3 channel 5V range, 1 channel 10V range, 4-20mA range , Thermocouple input, Temperature sensor Lm35 & 1 channel Potentiometer input.
- ❖ On board 8 bit DAC using DAC0800 output of 5V & 10V range provided at KRE Connector.
- ❖ One onboard 12 Volt Stepper Motor interface.
- ❖ Four SINK output with 200mA terminated at KRE connector
- ❖ 24 I/O lines using 8255 IC are terminated at 26 pin FRC connector.

- On board supply \pm 12V/1A, 5V/2A is provided.
- Supply Input Voltage: 110Volts to 230 volts AC at 50Hz/60Hz.
- 26 Pin FRC Cable, 50 Pin FRC Cable, 9 Pin Serial Cable & USB Cable Provided.
- All ICS are mounted on IC Sockets.
- Bare board Tested Glass Epoxy SMOBC PCB is used.
- Attractive Metal/ Wooden enclosures.
- Software in windows XP/2000.
- User's Manual with sample programs in 'C' language for all on board features.

Note : Specifications can be altered without notice in our constant efforts for improvement.