

Microcontrollers and Digital Signal Processors are the main engines of the deeply Embedded development world. Microcontrollers are primarily used in control oriented applications that are interrupt driven, in sensing and in controlling external events.

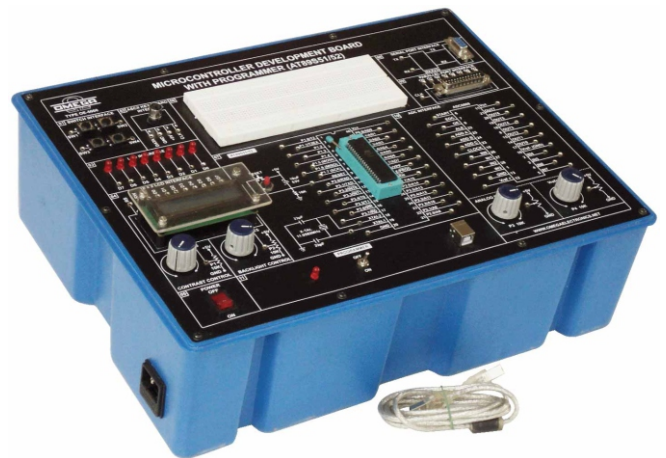
Microcontroller Trainer OE-5000 is AT89S52 based development platform that provides understanding of all the fundamentals of Microcontrollers. It helps the user to gain Knowledge regarding Arithmetic, Logic, Single bit programming and interfacing of peripherals. It also provides a development platform to design and implement Microcontroller based systems. The trainer is user friendly & completely self contained, having all the basis required circuits and controls on board.

OBJECTS

- 01 To study Interfacing of ADC with MCU.
- 02 To Study of Timing and control signal of ADC.
- 03 To study implementation, analysis and interfacing of ASCII keyboard.
- 04 To study and analyze the interfacing of switches
- 05 To study basics of Serial communication and MCU connections to serial port.
- 06 To study MCU connections to Parallel Port
- 07 To study PC Hyper terminal
- 08 To study programming and Transmission of data through Serial Port.
- 09 To Study programming and Reception of data through Serial Port.
- 10 To Study and Analyze the interfacing of 16 x 2 Characters LCD.
- 11 To Study installation procedure of Parallel Port viewer.
- 12 To Study implementation and analysis of printer interface using Parallel port.
- 13 To study of Synchronous and Asynchronous serial communication and many more...

TECHNICAL SPECIFICATIONS

- | | |
|--|---------------------------------|
| 01 Programmer | : In built USB Programmer |
| 02 Serial Communication | : Rs-232 Port |
| 03 Parallel Communication | : 25pin LPT port |
| 04 Baud Rate | : 9600 bps |
| 05 MCU | : AT89S51/52 |
| 06 Crystal Frequency | : 11.0592 MHz |
| 07 Display | : 16 x 2 Characters LCD |
| 08 Keyboard | : ASCII Keyboard |
| 09 LED's | : Eight No's |
| 10 Switches | : Four No's |
| 11 Printer | : Dot Matrix Printer (Optional) |
| 12 Contrast Control | : 0 - 5 V (Variable) |
| 13 Interconnections | : 2mm sockets |
| 14 Test Points | : 43 |
| 15 Back light Controls | : 0 - 5V (variable) |
| 16 ADC Input and - | |
| Reference voltage range : 0-5V DC (Variable) | |



GENERAL SPECIFICATIONS

- 01 In Built USB Programmer
- 02 Atmel 89S51/52 MCU clocked at 11.0592 MHz
- 03 16x2 Characters LCD Interface
- 04 8 channel ADC Interface
- 05 ASCII Keyboard Interface
- 06 LED Interface block
- 07 RS-232 Interface using Rx/Tx MCU for Uploading / Downloading
- 08 Printer Interface
- 09 Four Input sensing Switches
- 10 Pin to pin study of microcontroller unit
- 11 Visual Indication by LED's for displaying data, status & controls pins.
- 12 Reset / Restart Button
- 13 Input/Output & test points provided on board
- 14 Self-Contained trainer with built in power supply.
- 15 User friendly software
- 16 Exhaustive course & reference material

GENERAL

- | | |
|----------------------|--------------------|
| 01 Power Supply | : 230V ± 10%, 50Hz |
| 02 Power Consumption | : 17 VA (Approx). |
| 03 Dimension (mm) | : 300x400x113 |
| 04 Weight | : 2.2Kg. (Approx) |

LIST OF ACCESSORIES

- | | |
|---|----|
| 01 RS-232 Serial port interface cable 9 pin male to female. | 01 |
| 02 Panel cord interface cable 25 pin male to female..... | 01 |
| 03 ASCII Keyboard interface cable | 01 |
| 04 Patch cord 50cm 2mm plug Red | 05 |
| 05 Patch cord 50cm 2mm plug Black..... | 05 |
| 06 Software CD..... | 01 |

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

OMEGA ELECTRONICS