

1. 8085 Microprocessor kit



- **8085** Microprocessor operating at **6.144 MHz**
- **16KB** powerful software monitors **27C128 EPROM**.
- Three **16** bit programmable timers from **8253/8254**.
- **48** Programmable I/O lines from two nos. of **8255**.
- Serial interface using **8251**.
- **50** Pin **FRC** connector for system bus expansion.
- **20** pin **FRC connectors** for user interface from 8255.
- **9** Pin D type female connector for RS 232C interface and 9 Pin.
- **Six numbers** of selectable baud rates from 150 to 9600.
- **101** PC type keyboard for entering user address/data and for commands.
- Built in line-by-line **Assembler** and **Disassembler**.
- User-friendly software monitor for loading and executing programs with break point facility.
- Facility to connect to **PC**. - See more at:

2. 8051 Microcontroller kit



- USB Communication with CP2102
- Eight 5mm LEDs
- Eight Switches in DIP package
- LCD 16x2
- Four Seven Segment Displays
- ADC 0808 with 555 timer for sampling frequency
- Two Relays for Switching AC devices.
- 4x4 Keypad
- L293D Motor Driver for DC and Stepper Motors
- DS1307 based Real Time Clock
- AT2404 EEPROM
- Light Sensor(LDR)
- Temperature sensor(LM35)
- USB Programmer for AT89S series microcontrollers



Traffic Light Experimental Interface

OMEGA TYPE IF- 10 Traffic Light Experimental Interface which can be easily Interfaced with 8085/8086 Microprocessor Trainer with the help of a flat cable connected 50 pin FRC connectors both sides. These can be also Interfaced with IBM PC, XT, AT with the help of a 96 BIT TTL I/O experimental Interface Omega Type - IFB-1. Practical experience on this board carries great educative value for Science and Engineering Students.

OBJECT

01 To study Traffic Light Experimental Interface.

FEATURES

The board consists of following built in parts.

- 01 +5V D.C. at 100mA IC Regulated Power Supply.
- 02 1 nos. 50 Pins FRC Connector.
- 03 Movement of Traffic is simulated by 4 LEDs in each direction
- 04 LDRs.
- 05 RED, GREEN and YELLOW LED in each direction
- 06 Every LED and LDR are bit addressable.
- 07 Mains ON/OFF switch and LED for indications.
- 08 The unit is operative on 230V \pm 10% at 50Hz A.C. mains.



Dual D To A Converter Module

OMEGA TYPE IF-3 Dual Digital to Analog Converter Interface Module which can be easily interfaced with 8085/8086 Microprocessor Trainer with the help of a flat cable connected 50pin FRC connectors both sides.

FEATURES:

The board consists of the following built in parts:

- 01 +12V at 100mA IC Regulated Power Supply.
- 02 +5V at 100mA IC Regulated Power Supply.
- 03 One No. DAC IC - 0800.
- 04 Two Nos. OP-AMP IC-741.
- 05 Four Nos. Hex Inverter IC-7406.
- 06 8 Red LEDs to indicate input status of DAC 1 or Port A.
- 07 8 Green LEDs to Indicate input status of DAC2 or port C.
- 08 Unipolar or bipolar output can be selected by switch.
- 09 In unipolar mode the output is 0-5V D.C. and in bipolar mode the output is + 2.5V D.C.
- 10 One No. 50 Pins FRC Connector.
- 11 Easy to interface with OMEGATYPE OEJ-85A/ OEJ-86/IBM PC.
- 12 Adequate No. of other electronic components.
- 13 Mains ON/OFF switch and LED for indication.
- 14 The unit is operative on 230V + 10% at 50Hz. A.C. Mains.



OMEGA TYPE IF- 1 Analog to Digital Converter (16 Channels) Interface Module which can be easily Interfaced with 8085/8086 Microprocessor Trainer with the help of a flat cable connected 50 pin FRC connectors both sides. This can be also Interfaced with IBM PC, XT, AT with the help of a 96 BIT TTL I/O experimental Interface Omega Type- IFB-1. Practical experience on this board carries great educative value for Science and Engineering Students.

OBJECT

- 01 To study analog to Digital Converter (16 Channels)

FEATURES

The board consists of the following built in parts :

- 01 $\pm 5V$ D.C. at 100mA IC Regulated Power Supply
- 02 One no. ADC IC-0816.
- 03 Two nos. HEX inverter ICs-7406
- 04 One no. JK FLIP-FLOP IC-7473
- 05 One no. Timer IC-555.
- 06 One no. 50 pins FRC connector.
- 07 Analog input in the range of 20mV to 5V DC.
- 08 16 Independent analog input channels.
- 09 7 LEDs indicate status of channel selected & control signals.
- 10 Easy to interface with OMEGA TYPE OEJ-85A/OEJ-86/PC.



OMEGATYPE IF-8 stepper motor interface module which can be easily interfaced with 8085/8086 Microprocessor Trainer with the help of a flat cable connected 50 pin FRC connectors both sides. These can be also interfaced with IBM PC, XT, AT with the help of a 96 BIT TTL I/O experimental Interface Omega Type - IFB-1.

Practical experience on this board carries great educative value for Science and Engineering Students.

OBJECT

- 01 To study the operation of stepper motor clockwise direction.
- 02 To study the operation of stepper motor anti-clockwise direction.

FEATURES

The board consists of following built in parts.

- 01 12V D.C. at 1.5Amp. Regulated Power Supply.
- 02 8 nos. power transistors for driving two stepper motors.
- 03 8 nos. SL-100 transistors for driving power transistors.
- 04 8 nos. 10E, 10W resistance for over load protection.
- 05 One no. 50 pin FRC connector.
- 06 Provision for two motor is provided.
- 07 Easy to interface with OMEGATYPE OEJ-85A/OEJ-86 / IBM PC.
- 08 Adequate no. of other electronics components.
- 09 Mains ON/OFF switch and LED for indications.

SOFTWARE'S

MDK-ARM Version 5

MDK Microcontroller Development Kit

[Keil](#) MDK is the most comprehensive software development environment with out-of-the box support for over 4000 ARM and Cortex-M based microcontrollers. MDK is split into the MDK-Core and software packs, which makes new device support, and middleware updates independent from the toolchain. The for use in safety applications up to the highest safety integrity levels (SIL). The ARM Compiler Safety Package, available in MDK-Professional, enables fast toolchain qualification for any functional safety standards.

GNU 8085 Simulator

GNUSim8085 is a simulator and assembler for the Intel 8085 Microprocessor.

EdSim51DI simulator

The simulator does not run in real time, of course. When a program is running, the amount of elapsed time (as far as the 8051 is aware) is displayed in the field above the source code. The user can set the number of instructions executed between updates to the simulator GUI by selecting a value from the Update Freq. menu. Certain update frequencies suit some programs better than others.