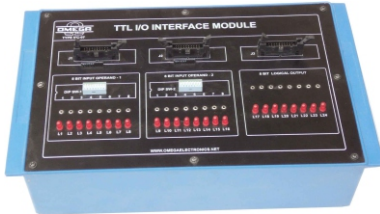


**APPLICATION MODULES FOR
MICROCONTROLLER WITH PROGRAMMER
AT89S51/52, AVR ATMEGA8515
OMEGA TYPE MCM-07 & MCM-08**

**TTL I/O INTERFACE MODULE
OMEGA TYPE MCM-07**



**REAL TIME CLOCK MODULE
OMEGA TYPE MCM-08**



Omega Type MCM-07 TTL I/O Interface Module enables students and practicing engineers to gain invaluable practical experience of the principles and applications of Microcontroller.

The objective is to connect and program an external controller, makes pins input and output and performs experiment like combination controller (AND, OR, NOT, NAND, NOR, EXOR & EXNOR Gates Operations), sequential controller, programmable counter, multiplexers etc.

The module provides buffered 8 TTL Outputs and 16 TTL Inputs. Logic state is indicated by LED'S. 16 Inputs are connected to DIP Switches and 8 outputs are connected to LED'S.

OBJECTS:

- 01 To Study the AND, OR, NOT, NAND, NOR, EXOR & EXNOR Gates Operations

TECHNICAL SPECIFICATIONS

- 01 LED'S : 24 Nos.
- 02 Switches : 16 Nos.
- 03 Power supply : From Microcontroller development board with Programmer trainer OE-5001 & OE-5003
- 04 Interface : Using 20 pin FRC cable
- 05 Test Points : 24
- 06 Dimension (mm) : W 340 x H125 x D210
- 07 Weight : 700 gm (Approx.)

GENERAL SPECIFICATIONS:

- 01 16 Bit Input Interface
- 02 8 Bit Output Interface
- 03 Eight Pin DIP Switches 2Nos.
- 04 PC based Programming
- 05 Expansion connectors for plug in with Microcontroller Unit and prototyping area
- 06 Every pin is marked in order to make work easier
- 07 Input/Output test points provided on board
- 08 Ready Experiments
- 09 Exhaustive course & reference material

LIST OF ACCESSORIES:-

- 01 Operating Manual

Omega Type MCM-08 Real Time Clock is an Extension module used with OE-5001,OE-5003, controllers board with programmer trainer. It helps the user to gain invaluable practical experience of the principles and application of real time clock, LCD and buzzer module in controller based projects. Real Time Clock Module MCM-08 is generally used in the applications such as real time clock alarm clock, Industrial automation, display related application and many more. We give a Contrast control and Backlight control in the board.

OBJECTS:

- 01 To study interfacing RTC DS1307 & it's Read/Write operation with help of PC.
- 02 To study Square Wave (SQWOUT) Generation on CRO.
- 03 To Study Digital Clock Setting and it's operation on LCD with Alarm Setting.

TECHNICAL SPECIFICATIONS

- 01 LCD Display : 16 x 2 LCD display
- 02 Real Time Clock(RTC): DS1307
- 03 RTC Interface type : I2C
- 04 BUZZER Section : +5V DC
- 05 LED Section : +5V DC
- 06 SWITCH Section : Four
- 07 Battery : 3.6VDC 600mAH
- 08 Power supply : From Microcontroller development board with programmer trainer OE-5001& OE-5003
- 09 Interface : 20 pin FRC cable
- 10 Test Points : 10
- 11 Dimension (mm) : W340 x H125 x D210
- 12 Weight : 700 gm (approx)

GENERAL SPECIFICATIONS:

- 01 PC based Programming
- 02 Expansion connectors for plug in with Microcontroller Unit and prototyping area
- 03 Every pin is marked in order to make work easier
- 04 Input/Output test points provided on board
- 05 Ready Experiments
- 06 Exhaustive course & reference material

LIST OF ACCESSORIES:-

- 01 Operating Manual

Note : These modules work only in combination with Omega Type OE-5001 & OE-5003 Trainers

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

OMEGA ELECTRONICS