

# APPLICATION MODULES FOR MICROCONTROLLER WITH PROGRAMMER AT89S51/52, AVR ATMEGA8515 OMEGA TYPE MCM-01 & MCM-02

#### INPUT INTERFACE MODULE

**OMEGA TYPE MCM-01** 



#### ADC/DAC MODULE

**OMEGA TYPE MCM-02** 



Omega Type MCM-01 input interface module for Microcontroller development board with programmer trainer, MCM-01 is an Extension module. The module has been designed to demonstrate the students and practicing engineers to gain invaluable practical experience on the principle and applications of microcontroller. The objective is to have a clear understanding of how input peripherals are interfaced and controlled with microcontroller.

Input interface module, MCM-01 has input and output terminals for connection of external real world applications. Matrix keypad controlling and pressing is shown with the help of LED's.

### **OBJECTS:**

01 To study and analyze the interfacing of switches 02 To study implementation, analysis and interfacing

of ASCII Keyboard

03 To study implementation, analysis and interfacing of 4 x 4 matrix Keypad

# **TECHNICAL SPECIFICATIONS:**

01 LED'S Output LEDs Indicator Eight No's

: 4 x 4 Matrix Keypad : ASCII Keyboard 02 Keypad

03 Keyboard

04 Switches : Four No's

05 Power supply: From Microcontroller development

board with programmer trainer

OE-5001 & OE-5003

06 Interface : Using 20 pin FRC cable

07 Test points : 24

08 Dimension

: W 340 x H 125 x D210 (mm) 09 Weight : 700 gm (approx) **GENERAL SPECIFICATIONS:** 

01 PC based Programming

02 Expansion connectors for plug in with Micro controller 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

02 PC Key Board

Omega Type MCM-02 ADC/DAC module enables students and practicing engineers to gain invaluable practical experience of the principles and applications of microcontroller. The objective is to have a clear understanding of how analog inputs are converted into digital through ADC/DAC module and vice versa. MCM-02 has inputs and outputs terminals for connection of external real world applications.

#### **OBJECTS:**

01 To study interfacing of ADC 0808 with Microcontroller

02 Study of timing and control signals of ADC with MCU

03 To study interfacing of DAC 0808 with Microcontroller

## TECHNICAL SPECIFICATIONS.

01 8 channel

ADC Interface : ADC 0808 : DAC 0808

02 DAC Interface : 03 ADC Input and Reference

voltage range : 0-5 V DC (Variable) 04 Power supply From Microcontroller

development board with programmer trainer OE-5001 & OE-5003

Using 20 pin FRC cable 05 Interface

06 Test points

: 48 : W 340 x H 125 x D210 07 Dimension (mm) 08 Weight 700 gm (approx)

#### GENERAL SPECIFICATIONS:

01 PC based Programming

02 Expansion connectors for plug in with Micro controller 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

02 Patch cord 2mm length 50cm Red & Black......03.

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

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