i-mob-85ADU

8085 MICROPROCESSOR TRAINER KIT WITH LCD, PC KEYBOARD, ADC, DAC, RELAY/OPTO, PROGRAMMER & USB INTERFACE

TECHNICAL SPECIFICATIONS

- **Diagrammatic representation of full system**
- No components provided on board
- 8085 CPU operating at 6.144 MHz crystal frequency
- 16K bytes of EPROM with monitor program
- 8/32K bytes of RAM with battery back for user
- Memory expansion upto 64K bytes
- Memory mapping definable by the user
- **Onboard Interface : ADC, DAC, Relay & Opto, Real Time Clock & EPROM Programmer for 27 series**
- 16 bit programmable TIMER/COUNTER using 8253
- Programmable I/O lines provided through 8255
- RS-232C interface with Auto baud rate
- IBM PC Compatible ASCII keyboard
- LCD display with backlite
- **USB Interface**
- All address, data & control lines are buffered and made available at STD bus configuration
- Powerful software commands
- Facility for Downloading / Uploading files from/to PC
- Assembler / Disassembler
- Facility of writing program in assembly language
- In-Built Power Supply
- **Compatible with all Vinytics make Interfacing & Study cards for Microprocessor and Microcontroller Kits**

i-mob-85U

8085 MICROPROCESSOR TRAINER KIT WITH LCD, PC KEYBOARD & USB INTERFACE

TECHNICAL SPECIFICATIONS

- **Diagrammatic representation of full system**
- No components provided on board
- 8085 CPU operating at 6.144 MHz crystal frequency
- 8K bytes of EPROM with monitor program
- 8/32K bytes of RAM with battery back for user
- Memory expansion upto 64K bytes
- Memory mapping definable by the user
- 16 bit programmable TIMER/COUNTER using 8253
- Programmable I/O lines provided through 8255
- RS-232C interface with Auto baud rate
- IBM PC Compatible ASCII keyboard
- LCD display with backlite
- **USB Interface**
- All address, data & control lines are buffered and made available at STD bus configuration
- Powerful software commands
- Facility for Downloading / Uploading files from/to PC
- Assembler / Disassembler
- Facility of writing program in assembly language
- In-Built Power Supply
- **Compatible with all Vinytics make Interfacing & Study cards for Microprocessor and Microcontroller Kits**

Vinytics Peripherals Pvt. Ltd., WB-10, Shakarpur, Delhi-110092 (INDIA). Ph.: +911122462826 Telefax : +911122515127.
Website : www.vinyticsppl.com, Email : vinytics@vsnl.com, vinyticsppl@rediffmail.com, vinyticsindia.gmail.com

i-mob-8609ADU

8086 MICROPROCESSOR TRAINER KIT WITH LCD, PC KEYBOARD, ADC, DAC PRINTER & USB INTERFACE

TECHNICAL SPECIFICATIONS

- **Diagrammatic representation of full system**
- No components provided on board
- Based on 8086 CPU
- 16K bytes of EPROM with monitor program
- 16K bytes of RAM with battery back for user
- Memory expansion upto 128K bytes
- Memory mapping definable by the user
- 16 bit programmable TIMER/COUNTER using 8253
- Programmable I/O lines provided through 8255
- 8 different level Interrupt through 8259
- RS-232C interface through 8251 with Auto baud rate
- IBM PC Compatible ASCII keyboard
- LCD display with backlite
- **USB Interface**
- All address, data & control lines are buffered and made available at STD bus configuration
- Powerful software commands Facility for Downloading / Uploading files from/to PC
- **Onboard Interface : ADC, DAC, Real Time Clock & Printer**
- Assembler / Disassembler Facility of writing program in assembly language
- In-built Power Supply
- **Compatible with all Vinytics make Interfacing & Study cards for Microprocessor and Microcontroller Kits**

i-mob-31/51ADU

8031/51 MICROCONTROLLER KITH WITH LCD, PC KEYBOARD, ADC, DAC, PRINTER & USB INTERFACE

TECHNICAL SPECIFICATIONS

- **Diagrammatic representation of full system**
- No components provided on board
- Based on 8051/89C52 operating at 12MHz
- 16K bytes of EPROM with monitor program
- 32K bytes of RAM with battery back for user
- Memory expansion upto 64K bytes
- Memory mapping definable by the user
- **Onboard Interface : ADC, DAC & Printer Interface**
- 3 bit programmable TIMER/COUNTER using 8253
- 2 External interrupt INT0 & INT1
- 48 Programmable I/O lines provided through 8255
- RS-232C interface using 8251
- Auxiliary RS-232C using serial pin of 80C31
- Serial USART provided by 89C51/89C52
- IBM PC Compatible ASCII keyboard
- LCD display with backlite
- **USB Interface**
- All address, data & control lines are buffered and made available at STD bus configuration
- Powerful software commands
- Facility for Downloading / Uploading files from/to PC
- Assembler / Disassembler
- Facility of writing program in assembly language In-Built Power Supply
- **Compatible with all Vinytics make Interfacing cards for Microprocessor and Microcontroller Kits**

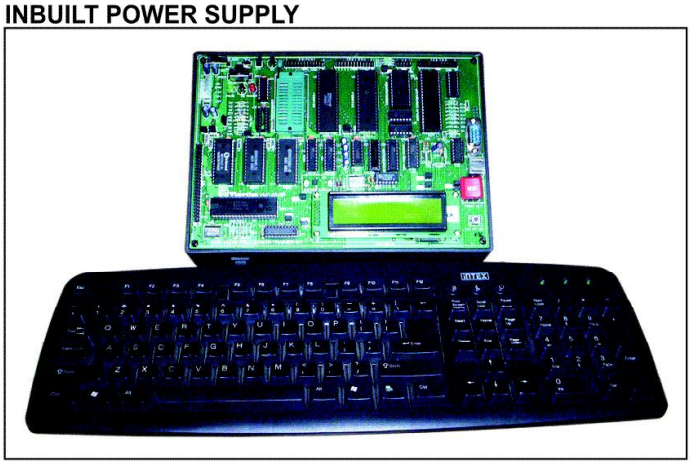
PRODUCT SELECTION GUIDE

Specifications are subject to change without notice due to our constant efforts for improvement.

Vinytics Peripherals Pvt. Ltd., WB-10, Shakarpur, Delhi-110092 (INDIA). Ph.: +911122462826 Telefax : +911122515127.
Website : www.vinyticsppl.com, Email : vinytics@vsnl.com, vinyticsppl@rediffmail.com, vinyticsindia.gmail.com

VMC-8509U VMC-8509ADU STUDENT-85U STUDENT-85ADU

8085 MICROPROCESSOR TRAINER WITH LCD DISPLAY, USB INTERFACE, ADC, DAC, EPROM PROGRAMMER & INBUILT POWER SUPPLY



TECHNICAL SPECIFICATIONS FOR VMC-8509U

- Based on 8085 CPU operating at 6.144 MHz crystal
- 16K bytes of EPROM with powerful monitor program
- 16K byte of RAM available to the user
- Battery backup for user's RAM with 3.6V rechargeable cell
- Total on board memory expansion upto 64K bytes using 2732/2764/27128/6264
- Memory mapping definable by the user
- 20x2 Liquid Crystal Display for standard model
  [Display can be replace by 20×4 or 40×2 on request at additional cost]
- 104/105KeysIBM PC Compatible ASCII Keyboard
- 8251 USART interface through RS-232C port
- 48 programmable I/O lines through 2 nos. of 8255
- 16 bit programmable timer/counter using 8253
- **USB Interface to connect kit to computer (OPTIONAL)**
- **V-USB Terminal Software** to operate kit from USB Port to execute all commands like Examine Mem, Execute, Assembler & Dissembler etc
- RS-232C interface for CRT using SID / SOD lines
- Real Time Clock using 6264 (OPTIONAL).
- Two modes of Commands: Key board Mode & Serial Mode
- All address, data and control lines are buffered & made available at connector as per STD Bus configuration
- Powerful Software Commands like relocate, string, fill, insert, delete, block move, memory compare etc
- Onboard Single Line Assembler/Disassembler
- Facility for Downloading/Uploading files from/to PC
- **Enclosed in an attractive ABS plastic cabinet with cover**
- **In-built Power Supply**
- User's Manual

TECHNICAL SPECIFICATIONS FOR VMC-8509ADU

- All Specifications are same as **VMC-8509ADU** with additional features as given below :
- Additional serial port using 8251
- EPROM Programmer for 27 series with 28 pin ZIF
- Interrupt Controller using 8259 & Printer Interface
- 8 Channel 8 bit ADC using 0809
- 1 Channel 8 bit D/A using DAC 0800
- 1 Relay output & 1 Opto isolated input

ORDERING GUIDE :

VMC-8509	WITH RS-232 SERIAL INTERFACE
VMC-8509U	WITH USB & RS-232C SERIAL INTERFACE
VMC-8509AD	ONBOARD ADC, DAC, RELAY, OPTO & EPROM PROGRAMMER
VMC-8509ADU	WITH USB INTERFACE & ONBOARD ADC, DAC, RELAY, OPTO & EPROM PROGRAMMER

ORDER 8506 instead of 8509 for Seven Segment Display & Hex keypad instead of LCD display & PC keyboard

8085 MICROPROCESSOR TRAINER WITH LCD DISPLAY, USB INTERFACE & INBUILT POWER SUPPLY

TECHNICAL SPECIFICATIONS FOR STUDENT-85U

- Based on 8085 CPU operating at 6.144 MHz crystal frequency
- 8K bytes of EPROM loaded with powerful monitor program
- 8K bytes of RAM available to the user
- Total on board memory expansion upto 64K bytes
- Memory mapping definable by the user
- 16 bit programmable TIMER/COUNTER using 8253
- 48 programmable I/O lines provided through 8255
- RS-232C interface through SID/SOD Lines with Auto baud rate
- **USB Interface to connect kit to computer (OPTIONAL)**
- **V-USB Terminal Software** to operate kit from USB Port to execute all commands like Examine Mem, Execute, Assembler & Dissembler etc
- Two modes of commands:
- - Hex Key pad mode & Serial mode
- All address, data & control lines are buffered and made available at the edge connector as per STD bus configuration
- IBM PC Compatible ASCII Keyboard
- 16x2 LCD display for standard model
  [Display can be replace by 20×2 or 20×4 or 40×2 on request at additional cost]
- Powerful software commands like Relocate, String, Fill, Insert, Delete, Block Move, Examine/Compare Memory, Examine Register, Insert Data, Delete Data, Single Step, GO, Break Point in both Serial and Keyboard mode
- Facility for Downloading/Uploading files from/to PC
- On board Disassembler
- Battery back up provided
- Enclosed in an attractive ABS plastic cabinet with cover
- In-Built Power Supply
- User's Manual

TECHNICAL SPECIFICATIONS FOR STUDENT-85ADU

- All Specifications are same as **STUDENT-85U** with additional features as given below :
- I/O lines Controlled
- 8 LED using 8 nos. of I/O lines
- 2 Relay of 12V & 1 Opto
- 8 Bit DAC using DAC-0800
- 8 Channel 8 Bit ADC using ADC-0809

ORDERING GUIDE :

STUDENT-85	WITH RS-232 SERIAL INTERFACE
STUDENT-85U	WITH USB & RS-232 SERIAL INTERFACE
STUDENT-85AD	ONBOARD ADC, DAC, RELAY, OPTO & I/O LINES USING LED
STUDENT-85ADU	WITH USB INTERFACE & ONBOARD ADC, DAC, RELAY, OPTO & I/O LINES USING LED

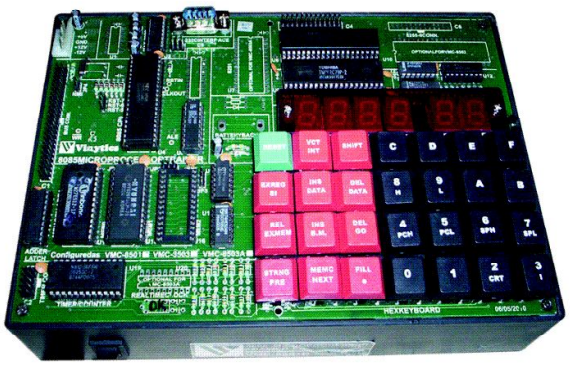
PRODUCT SELECTION GUIDE

Specifications are subject to change without notice due to our constant efforts for improvement.

Vinytics Peripherals Pvt. Ltd., WB-10, Shakarpur, Delhi-110092 (INDIA). Ph.: +911122462826 Telefax : +911122515127.
Website : www.vinyticsppl.com, Email : vinytics@vsnl.com, vinyticsppl@rediffmail.com, vinyticsindia.gmail.com

VMC-8501U VMC-8502U

8085 MICROPROCESSOR TRAINER WITH LED DISPLAY, USB INTERFACE & INBUILT POWER SUPPLY



TECHNICAL SPECIFICATIONS FOR VMC-8501U

- Based on 8085 CPU operating at 6.144 MHz crystal frequency
- 8K bytes of EPROM loaded with powerful monitor program
- 8K bytes of RAM available to the user
- Total on board memory expansion upto 64K bytes using 2732/2764/27128/6264/ 62256 with 1 socket of 28 pin
- Battery back up for RAM with 3.6V rechargeable cell
- Memory mapping definable by the user
- 16 bit programmable TIMER/COUNTER using 8253
- Additional serial port using 8251 **(OPTIONAL)**
- Real Time Clock **(OPTIONAL)**
- 24 I/O lines provided through 8255
- RS-232C interface through SID/SOD Lines with Auto baud rate
- **USB Interface to connect kit to computer (OPTIONAL)**
- **V-USB Terminal Software** to operate kit from USB Port to execute all commands like Examine Mem, Execute, Assembler & Dissembler etc
- Two modes of commands:
  - Hex Key pad mode & Serial mode
- All address, data & control lines are buffered and made available at the edge connector as per STD bus configuration
- 25/28 key hexadecimal keyboard and six seven segment displays through 8279
- Powerful software commands like Relocate, String, Fill, Insert, Delete, Block Move, Examine/Compare Memory, Examine Register, Insert Data, Delete Data, Single Step, GO, Break Point in both Serial & Keyboard mode
- Facility for Downloading/Uploading files from/to PC
- **Enclosed in an attractive ABS plastic cabinet with cover**
- **In-built Power supply**
- User's Manual

TECHNICAL SPECIFICATIONS FOR VMC-8502U

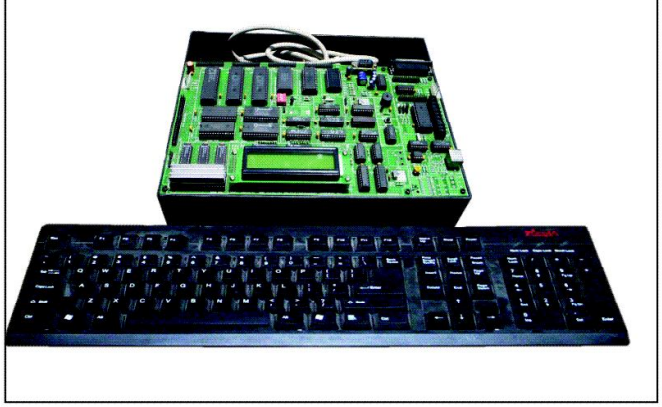
- All Specifications are same as **VMC-8501U** with additional features as given below :
- 22 I/O lines provided through 8155

ORDERING GUIDE :

VMC-8501	WITH RS-232 SERIAL INTERFACE
VMC-8501U	WITH USB & RS-232 SERIAL INTERFACE
VMC-8502	ADDITIONAL I/O LINES THROUGH 8155
VMC-8502U	WITH USB INTERFACE & ADDITIONAL I/O LINES THROUGH 8155
VMC-8503	48 I/O LINES THROUGH 8255
VMC-8503U	WITH USB INTERFACE & 48 I/O LINES THROUGH 8255

VMC-8609U VMC-8609ADU

8086/88 MICROPROCESSOR TRAINER WITH LCD DISPLAY, USB INTERFACE, EPROM PROGRAMMER, ADC, DAC & INBUILT POWER SUPPLY



TECHNICAL SPECIFICATIONS FOR VMC-8609U

- Based on 8086/8088 Microprocessor
- Onboard assembler & disassembler
- 16K Bytes of EPROM Loaded with monitor expandable to 256K Bytes using 27256 with commands like Assemble, Display or Modify Data, Unassembled, Trace, Go
- 16K bytes of CMOS RAM expandable to 128K Bytes using 6264/62256
- 72 I/O lines using three nos. of 8255
- 8 different level Interrupt through 8259
- Three 16 bit Timer/Counter through 8253
- 104/105Keys IBM PC Compatible ASCII Keyboard
- 20x2 Liquid Crystal Display for standard model
  [Display can be replace by 20×4 or 40×2 on request at additional cost]
- RS-232C Port using 8251
- **USB Interface to connect kit to computer (OPTIONAL)**
- **V-USB Terminal Software** to operate kit from USB Port to execute all commands like Examine Mem, Execute, Assembler & Dissembler etc
- All address, data and control signals (TTL Compatible) available at edge connector as per Multi Bus. The kit also has its own Resident Bus
- **Enclosed in an attractive ABS plastic cabinet with cover**
- **In-built Power Supply**
- User's Manual

TECHNICAL SPECIFICATIONS FOR VMC-8609ADU

- All Specifications are same as **VMC-8609U** with additional features as given below :
- On board 8 channel 8 Bit ADC
- On board Single channel 8 bit DAC
- Real time clock (optional)
- EPROM Programmer (Optional)

TECHNICAL SPECIFICATIONS FOR VMC-8609NIOU

- All Specifications are same as **VMC-8609ADU** with additional features as given below :
- Onboard sockets provided to facilitate the use of 8089 I/O processor & 8087 Numeric Data Processor with printer interface

ORDERING GUIDE :

VMC-8609	WITH RS-232 SERIAL INTERFACE
VMC-8609U	WITH USB &RS-232 SERIAL INTERFACE
VMC-8609AD	ONBOARD ADC, DAC, RELAY & OPTO
VMC-8609ADU	WITH USB INTERFACE & ONBOARD ADC, DAC, RELAY & OPTO
VMC-8609NIO	NUMERIC DATA & I/O PROCESSOR
VMC-8609NIOU	WITH USB INTERFACE, NUMERIC DATA & I/O PROCESSOR

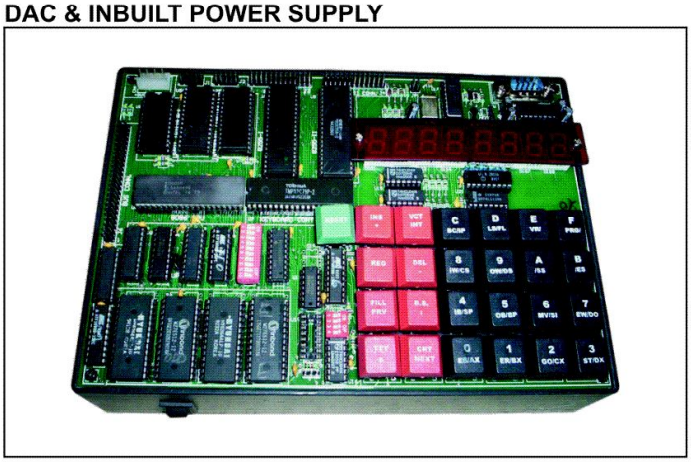
PRODUCT SELECTION GUIDE

Specifications are subject to change without notice due to our constant efforts for improvement.

Vinytics Peripherals Pvt. Ltd., WB-10, Shakarpur, Delhi-110092 (INDIA). Ph.: +911122462826 Telefax : +911122515127.
Website : www.vinyticsppl.com, Email : vinytics@vsnl.com, vinyticsppl@rediffmail.com, vinyticsindia.gmail.com

VMC-8603U VMC-8603ADU

8086/88 MICROPROCESSOR TRAINER WITH LED DISPLAY, USB INTERFACE, EPROM PROGRAMMER, ADC, DAC & INBUILT POWER SUPPLY



TECHNICAL SPECIFICATIONS FOR VMC-8603U

- Based on Intel's 8086/8088 CPU operating at 2.5/5MHz
- 16K bytes of RAM available to the user using 6264
- 16K bytes of EPROM loaded with powerful monitor program (2764/27128)
- Total on board memory capacity of 128KB of RAM & 128KB of EPROM
- Battery backup provided for RAM area
- 48 I/O lines through 2 nos. of 8255
- 16 bit Timer/Counter through 8253
- RS-232C for CRT Terminal through 8251 Baud rate selection through DIP switch from 110-19,200 baud
- **USB Interface to connect kit to computer (OPTIONAL)**
- **V-USB Terminal Software** to operate kit from USB Port to execute all commands like Examine Mem, Execute, Assembler & Dissembler etc
- Provision for EPROM Programmer for 2732/2764/27256 with 28 pin ZIF with facility to Program, Verify, List & Blank Check for Even, Odd & Continuous bytes
- 25/28 keys hexadecimal keyboard & eight seven segment display.
- Resident Monitor with two modes of operation:
  - Keyboard mode & Serial mode
- Powerful software commands like GO, EXAMINE/MODIFY REGISTERS, SINGLE STEPPING, BLOCK MOVE, FILL, INSERT, DELETE, INPUT/OUTPUT BYTE & WORD
- Facility for uploading/downloading of files from/to PC
- All Address, Data and Control Signals, are buffered and available at the FRC connector
- **Enclosed in an attractive ABS plastic cabinet with cover**
- **In-built Power Supply**
- User's Manual

TECHNICAL SPECIFICATIONS FOR VMC-8603ADU

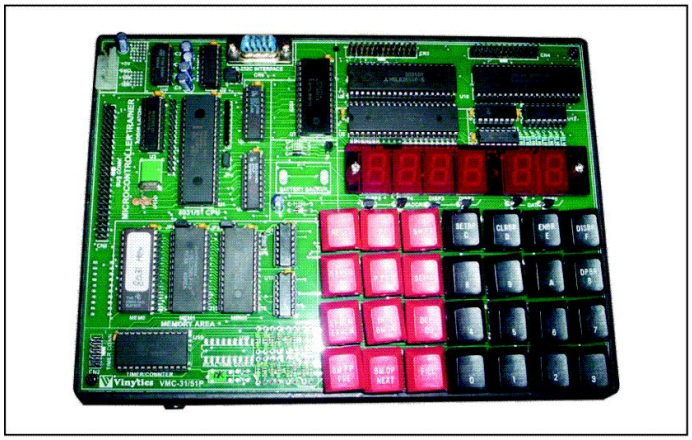
- All Specifications are same as **VMC-8603ADU** with additional features as given below :
- On board Analog to Digital Converter
- On board Digital to Analog Converter
- EPROM Programmer
- Onboard sockets provided to facilitate the use of 8089 I/O processor & 8087 Numeric Data Processor (Optional)

ORDERING GUIDE :

VMC-8603U	WITH USB & RS-232 SERIAL INTERFACE
VMC-8603	WITH RS-232 SERIAL INTERFACE
VMC-8603AD	ONBOARD ADC, DAC & EPROM PROGRAMMER
VMC-8603ADU	WITH USB INTERFACE & ONBOARD ADC, DAC & EPROM PROGRAMMER

VMC-31/51U VMC-31/51

8031/51 MICROCONTROLLER TRAINER KIT WITH LED DISPLAY, USB INTERFACE, & INBUILT POWER SUPPLY



TECHNICAL SPECIFICATIONS FOR VMC-31/51U

- Based on 8031/8051/8751 operating at 10/12 MHz.
- On board 8K RAM.
- Battery backup for RAM area.
- 8/16K bytes of EPROM with powerful monitor program.
- Total memory expandable upto 128K Bytes using four 28 pin sockets.
- 48 I/O lines using 2 nos. of 8255.
- Two External interrupts INT0 & INT1.
- Hexadecimal Keyboard & six Seven Segment displays.
- RS-232C interface using 8251.
- Auxiliary RS-232C using serial pins of 80C31.
- All data, address and control signals (TTL compatible) available at FRC connector.
- Powerful software commands like INSERT, DELETE, BLOCK MOVE, SET / CLEAR BREAK POINT, SINGLE STEP, EXAMINE THROUGH REGISTER, EXECUTE, EXAMINE, MODIFY, PROGRAM / DATA/INTERNAL MEMORY etc.
- Uploading/Downloading facility from PC in Intel Hex format.
- **USB Interface to connect kit to computer (OPTIONAL)**
- **V-USB Terminal Software** to operate kit from USB Port to execute all commands like Examine Mem, Execute, Assembler & Dissembler etc
- **Enclosed in an attractive ABS plastic cabinet with cover**.
- **In-built Power Supply**
- User's Manual.

ORDERING GUIDE :

VMC-31/51	WITH RS-232 SERIAL INTERFACE
VMC-31/51U	WITH USB & RS-232 SERIAL INTERFACE

PRODUCT SELECTION GUIDE

Specifications are subject to change without notice due to our constant efforts for improvement.

Vinytics Peripherals Pvt. Ltd., WB-10, Shakarpur, Delhi-110092 (INDIA). Ph.: +911122462826 Telefax : +911122515127.
Website : www.vinyticsppl.com, Email : vinytics@vsnl.com, vinyticsppl@rediffmail.com, vinyticsindia.gmail.com

Home
Back

VMC-31/51LCDU VMC-31/51LCDADU

8031/51 MICROCONTROLLER TRAINER KIT WITH LCD DISPLAY, USB INTERFACE, ADC, DAC & INBUILT POWER SUPPLY

TECHNICAL SPECIFICATIONS FOR VMC-31/51LCDU

- Based on 8051/89C52 Microcontroller
- On board 32K RAM
- Battery backup for RAM area
- 64 K bytes of EPROM with powerful monitor program
- Total memory expandable upto 256K Bytes using four 28 pin sockets
- 3 channel programmable timer/counter using 8253
- IBM PC compatible keyboard
- 20 x 2 LCD display for standard model
  [Display can be replace by 20×4 or 40×2 on request at additional cost]
- 48 I/O lines using 2 nos. of 8255
- IBM PC keyboard
- Two External interrupts INT0 & INT1
- RS-232C interface using 8251
- One serial USART interface provided by 89C51/89C52
- Auxiliary RS-232C using serial pins of 80C31
- **USB Interface to connect kit to computer (OPTIONAL)**
- **V-USB Terminal Software** to operate kit from USB Port to execute all commands like Examine Mem, Execute, Assembler & Dissembler etc
- All data, address and control signals (TTL compatible) available at FRC connector
- Powerful software commands like INSERT, DELETE, BLOCK MOVE, SET / CLEAR BREAK POINT, SINGLE STEP, EXAMINE THROUGH REGISTER, EXECUTE, EXAMINE, MODIFY, PROGRAM / DATA/INTERNAL MEMORY etc
- Uploading/Downloading facility from PC in Intel Hex format
- **Enclosed in an attractive ABS plastic cabinet with cover**
- **In-built Power Supply**
- User's Manual.

TECHNICAL SPECIFICATIONS FOR VMC-31/51LCDADU

- All Specifications are same as **VMC-31/51LCDU** with additional features as given below :
- Onboard Analog to Digital converter using ADC0809
- Onboard Digital to Analog converter using DAC0800
- Onboard Real Time Clock

ORDERING GUIDE :

VMC-31/51LCD	WITH RS-232 SERIAL INTERFACE
VMC-31/51LCDU	WITH USB & RS-232 SERIAL INTERFACE
VMC-31/51LCDAD	ONBOARD ADC, DAC
VMC-31/51LCDADU	WITH USB INTERFACE, ADC & DAC

ORDER VMC-89C52 instead of VMC-31/51LCD for 89C52 Microcontroller instead 8031/8051

VMC-89C61U

ADVANCED MICROCONTROLLER TRAINER KIT WITH 89C61/89C52 & USB INTERFACE

TECHNICAL SPECIFICATIONS

- 89C61/89C52 CPU operating @ 11.0592 MHz crystal
- 32K user RAM using 62256 with Battery Backup using NICD Battery
- 16K bytes of powerful monitor EPROM using 27512
- One memory socket is provided for expansion up to 64k
- On-board ISP programming facility with windows based ISP software
- 48 I/O lines using 8255 brought at 26 Pins FRC Connector
- Three Channel Timer/Counter using 8253
- On-Board 12Bit ADC using AD574
- On-Board 1Ch. DAC using DAC0800
- On-Board Real Time Clock using RTC6242 (OPTIONAL)
- AUX. RS-232C Interface using 8251 terminated on 9 Pins D-Type Connector
- 20x2 Alphanumeric LCD Display with Backlite for standard model
  [[Display can be replace by 20×4 or 40×2 on request at additional cost]
- **USB Interface to connect kit to computer(OPTIONAL)**
- **V-USB Terminal Software** to operate kit from USB Port to execute all commands like Examine Mem, Execute, Assembler & Dissembler etc
- 101 ASCII Keyboard interface using 89C2051 operating @ 12MHz
- Two External interrupts INT0 & INT1 are available at FRC connector
- RS-232C using RX/TX of 8051 terminated on 9 Pins D-Type Connector
- Onboard Single Line Assembler / Disassembler
- Two modes of operation:
  ASCII Keyboard Mode & Serial Mode
- Powerful Commands like Examine/Edit Memory, Examine/Edit Register, Single stepping, Execution, Break Point can be used through ASCII keyboard or PC serial mode
- Facility for Downloading/Uploading files from/to PC
- All Address, Data, Control & Port lines are available on 50 Pins FRC Connector
- **In-Built Power Supply**
- **Enclosed in an attractive ABS plastic cabinet with cover**
- User's Manual with sample program

ORDERING GUIDE :

VMC-89C61	WITH RS-232 SERIAL INTERFACE
VMC-89C61U	WITH USB & RS-232 SERIAL INTERFACE

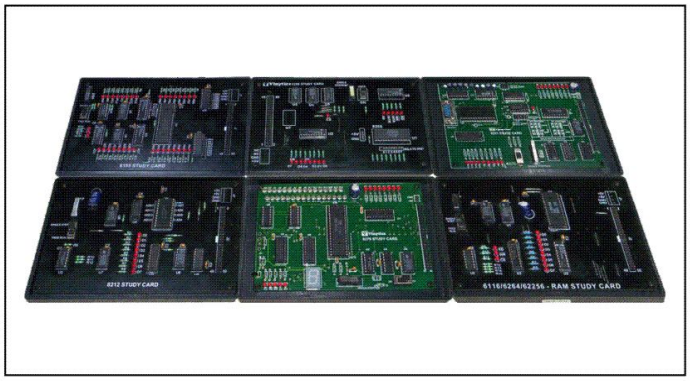
PRODUCT SELECTION GUIDE

Specifications are subject to change without notice due to our constant efforts for improvement.

Vinytics Peripherals Pvt. Ltd., WB-10, Shakarpur, Delhi-110092 (INDIA). Ph.: +911122462826 Telefax : +911122515127.
Website : www.vinyticsppl.com, Email : vinytics@vsnl.com, vinyticsppl@rediffmail.com, vinyticsindia.gmail.com

STUDY CARDS/MODULES

FOR ALL MICROPROCESSOR & MICROCONTROLLER TRAINING KITS



The **Study Cards** can be connected to the STD BUS of any 8/16 bit Microprocessor / Microcontroller Training kit offered by **Vinytics** to perform the experiments in the laboratory. This helps in learning about real time interfacing problems of the Microprocessors / Microcontrollers. All Microprocessor / Microcontroller training kits offered by **Vinytics** can be connected to these modules through 50 pin FRC cable. These cards are provided with the LEDs for each control signals and data bus. By executing program in single step with the help of switch on these cards one can understand the working of peripheral Ics.

SC-12 Memory Decoder Study Card

The Study Card based on 8212 helps to understand the function of decoder. LEDs are provided for data bus and control signals.

SC-51 USART Study Card

This Study card helps to understand the functions of Universal Synchronous/Asynchronous Receiver Transmitter. LED's are providing for different signals like chip select, Data Bus, Read/Write, etc. This Study Card is interface with PC for giving input from the keyboard and output is taken on monitor.

This study card enables the user to understand the operation in all six modes of programmable timer/counter chip (8253) LED's are provided for different signals like Chip Select, Data Bus, Read/Write etc.

This study card helps to understand the working of chip used for latching the address. LED's are provided for Data Bus to enable the user to know which data is present on

SC-55 PPI Study Card

This Study card helps to understand the working of the programmable peripherals interface chip in various modes. LED's are provided for different signals like Read / Write, A0, A1, Data Bus, Chip Select & all ports etc.

SC-57 DMA Study Card

This study card helps to understand the working of Direct Memory Access chip in different modes. LED's are provided for different signals like Data Bus, Address Bus (A3-A0), TC, HRQ, AEN, IR, IW, MR, MW, CS etc.

SC-59 PIC Study Card

This study card helps to understand the working of programmable interrupt controller. LED's are provided for different signals like Data Bus, Read, Write, INTA, A0, CS etc.

SC-79 Keyboard Display Controller Study Card

This study card helps to understand the working of keyboard/display controller. LED's are provided for different like Data Bus, Write, Read, Chip Select, A0, INT etc.

SC-55T PPI with Timer Study Card

This study card helps to understand the working of programmable peripherals interface chip with timer & RAM, LED's are provided for different signals like Data Bus, Chip Select, Read, Write, A0, A1 and all ports etc.

SC-64 RAM Study Card

This study card helps to understand the working of Random Access Memory (RAM) 6264. LED's are provided for different signals like Data Bus, Read, Write, Chip Select etc.

SC-256 RAM Study Card

This study card helps to understand the working of RAM 62256. LED's are provided for different signals like Data Bus, Read, Write, Chip Select etc.

ORDERING GUIDE :

☞ **Interfacing modules & Study Cards are compatible with all Microprocessor (8085 & 8086) and Microcontroller Kits. However should be made clear with which kit these modules need to be interfaced. FRC Cable (26 pin) for interfacing module and FRC (50 pin) for Study cards/module should be ordered separately for each module/study cards.**

PRODUCT SELECTION GUIDE

Specifications are subject to change without notice due to our constant efforts for improvement.

Vinytics Peripherals Pvt. Ltd., WB-10, Shakarpur, Delhi-110092 (INDIA). Ph.: +911122462826 Telefax : +911122515127.
Website : www.vinyticsppl.com, Email : vinytics@vsnl.com, vinyticsppl@rediffmail.com, vinyticsindia.gmail.com

INTERFACING CARDS/MODULES

FOR ALL MICROPROCESSOR & MICROCONTROLLER TRAINING KITS

VMC-ADC — ADC Interface

This interface consists of 8 bit analog to digital converter uses successive approximation method for conversion. 8 LED's are provided to display the digital value of analog input.

VMC-ADC0809 — ADC-0809 Interface

Uses 8 bit ADC-0809 monolithic CMOS device with in-built 8 channel multiplexer. 8 LED's are provided to display the digital value of the input analog signal (optional). The complete operation of A/D converter chip can be understood using this card.

VMC-DAC — Dual DAC Interface

Consists of two independent 8 bit digital to analog converter alongwith a stable regulated voltage source using 723 regulator. The current output of DAC are converted to voltage using operational amplifiers.

VMC-LC — Logic Controller Interface

The logic controller interface provides the user 8 TTL buffered outputs & inputs. The logic state of each input & output is indicated by LED. This module can be effectively used to teach 8255 in input & output modes. It can also simulate ladder networks.

VMC-ES — Elevator Simulator

This interface simulates the control operation of an elevator . The elevator is considered to function within a building having 4 floors. A key & corresponding LED indicator serves as request button & request status indicator. The LED's also indicate the position of the elevator within the shaft.

VMC-ICT — IC Tester Interface

The interface explain the working of IC testers for 14 pin or 16 pin digital IC's with the help of microprocessor. Three personality modules are to be inserted in three different sockets for the IC under test. A socket is provided for inserting the IC to be tested.

VMC-DI — Display Interface

A Four digit display using shift registers can be obtained on this module. This module has the capability to display in any combination. The display can be from right to left or left to right. A delay can be put between two display.

VMC-SMC — Stepper Motor Controller Interface

This module can control Stepper Motor in three parameters such as direction, speed & number of steps. The interface is useful for robotics & control applications.

VPC-SM — Stepper Motors

Torque Kg.-cm	Max. Speed RPM	Steps/ Degree	Volts/ Amps
0.25	100	7.5	5V/250mA
3	50	1.8	5V/1.5A
6	40	1.8	12V/3A

VMC-KB — Keyboard Interface

A calculator style keyboard consisting of the keys 0 to 9, *, +, -,/,C,CE and two user definable keys, allowing the user to study a number of techniques used in keyboard interface like software debouncing , two key lock out and keyboard encoding & pausing.

VMC-LCD — LCD Display Interface

A 16x1 Liquid Crystal Display using shift registers can be obtained on this module. This module has the capability to display in any combination. The display can be from right to left or left to right. A delay can be put between two display.

VMC-TLC — Traffic Light Controller Card

The Traffic Light Controller Card has RED, YELLOW & GREEN LED's to demonstrate the use of Microprocessor in controlling the traffic movement under the control of program. It is a good example of use of Microprocessor in common applications.

VMC-Temp — Temperature Measurement Card

Sensor to measure temperature upto 100^{0}C. alongwith room temperature compensation and amplifier with output of 0-5V corresponding to the temperature.

VMC-DC — DC Motor Controller Card

The VMC-DC card can control the speed of DC motor alongwith its direction under the control of the software program.

VMC-ROC — Relay & Opto Coupler Card

The VMC-ROC has four channel relay & opto coupler to demonstrate how I/O lines can be used to energise the relay and opto coupler to sense the input providing isolation.

VMC-LED — LED Display Matrix Card

The VMC-LED has a matrix of 8 x 8 LED's and is a module to demonstrate for displaying any character within the matrix. This is a small model of the display boards widely used in today's world.

VMC-TWSC — Thumb Wheel Switch Card

The VMC-TWSC has two nos. of Thumb Wheel Switches which can be read through I/O lines normally used in industrial controllers.

VMC-AD12 — 12bit ADC Interface Card

This interface consists of 12 bit AD574 device with 15 microseconds conversion timer. Both unipolar & bipolar operations are possible. This module can be used where 12 bit conversion is required for better accuracy and resolution of ADC.

VMC-3½ADC — 3½ Digit ADC Card

This interfacing cards uses ICL 7107 31/2 digit A/D converter with 0-2V input to be displayed on the microprocessors.

VMC-SC — Sound/Speaker Card

This interfacing cards uses clock generated from 8253 timer to generate different frequencies on to the speaker.

VMC-PI — Printer Interface Card

This interfacing cards uses 8255 of the Microprocessor / Microcontroller to print output on to the printer.

PRODUCT SELECTION GUIDE

Specifications are subject to change without notice due to our constant efforts for improvement.

Vinytics Peripherals Pvt. Ltd., WB-10, Shakarpur, Delhi-110092 (INDIA). Ph.: +911122462826 Telefax : +911122515127.
Website : www.vinyticsppl.com, Email : vinytics@vsnl.com, vinyticsppl@rediffmail.com, vinyticsindia.gmail.com