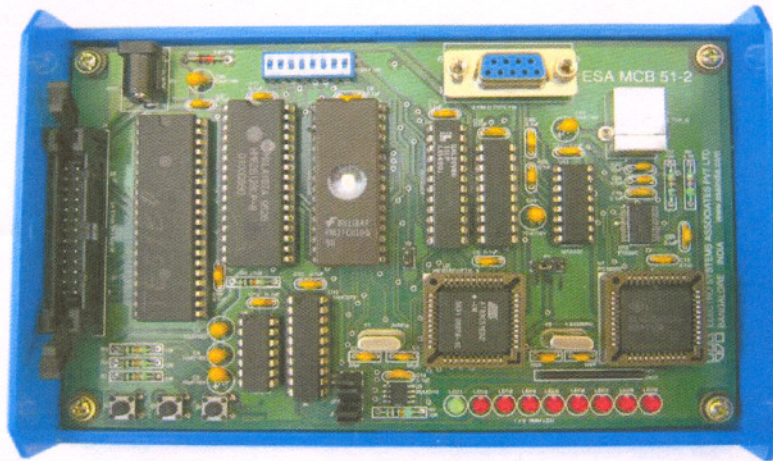




ESA MCB 51-2

MICROCOMPUTER BOARD FOR 8051



ESA MCB 51-2 Evaluation Board, a *special edition* of the successful ESA KEIL MCBx51 (now discontinued) with some advanced features, is meant for introducing the user to the 8051 family microcontrollers.

ESA MCB 51-2 supports numerous 8051 compatible devices. It allows the user to explore the capabilities of the 8051 and develop applications with KEIL development tools (KEIL μ Vision IDE). It can be used to develop the application in either Assembly or C language, debug the application at source level and deploy the same system in the field.

ESA MCB 51-2 is supplied with Programmable Peripheral Interface (PPI) device, 8255. So it can directly interface with the ESA range of interface modules. The 26 pin connector provided has matching pin designations required by the interface modules. This allows direct connection of the interface modules using the standard cables supplied along with the modules.

ESA MCB 51-2 also has an on-board Serial Peripheral Interface (SPI) accessible EEPROM 25AA010 with 1 Kb of memory. This is useful for exercising on-chip SPI feature.

ESA MCB 51-2 supports ISP (In-System Programming) to program the internal flash memory of the MCU. For example, ATMEL FLIP can be used with the factory-supplied MCU (AT89C51ED2/RD2).

MAIN FEATURES

- ◆ Supports Harvard and Von Neumann architectures
- ◆ Supports 64 KB of RAM
- ◆ Supports 64 KB of ROM
- ◆ On-board USB port
- ◆ RS-232C port using UART
- ◆ On-board PPI
- ◆ Supports serial download and debugging the user programs at source level
- ◆ Reset & Interrupt push button switches
- ◆ User definable push button switch
- ◆ System configuration using on-board DIP switches
- ◆ LEDs connected to port P1 for program testing
- ◆ On-board EEPROM (24AA010) with SPI interface
- ◆ Supports ISP
- ◆ Single Euro size card

SPECIFICATIONS

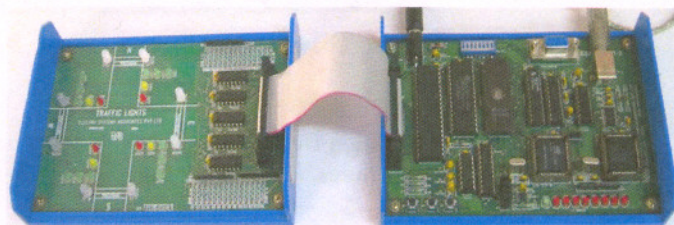
- ◆ MCU : AT89C51ED2/RD2 or Any other 44-pin PLCC 8051 compatible device, for example: Any classic 8051 device like 80C32 or 8xC51Fx
- ◆ BUS : 8 bit multiplexed
- ◆ Wait States : 0
- ◆ Clock Frequency : 24 MHz
- ◆ RAM : 64 KB
- ◆ ROM : 64 KB
- ◆ Serial Ports : One USB and one RS232
- ◆ PCB size : Single Euro (100mm x 160mm)

MONITOR CONFIGURATION

ESA MCB 51-2 includes pre-configured monitor program MON51 in EPROM and this provides a direct interface for source-level, symbolic debugging with Keil μ Vision debugger. User can download and debug application programs on MCB 51-2.

KEY FEATURES OF MON51:

- ◆ Display Memory contents in ASCII and hexadecimal
- ◆ Interactively change memory contents
- ◆ Display and change register contents
- ◆ Initialize memory with constant value
- ◆ Disassemble program code
- ◆ Assemble in-line code
- ◆ Run programs with break-points in real-time
- ◆ Single stepping in user program
- ◆ Step over subroutines
- ◆ Download Intel HEX files



SCOPE OF SUPPLY

1. ESA MCB 51-2 Evaluation Board
2. ESA MCB 51-2 User Guide
3. CD ROM with Evaluation Software
4. USB Cable
5. DC Power Adaptor 5V, 2A
6. RS232-C cable (optional)

SYSTEM REQUIREMENTS

PC with one RS232-c or USB port
Windows 2000/XP/Vista/Windows 7
One CD or DVD drive
200MB free Hard Disk space
512MB of RAM

OUR PRODUCT RANGE : Microprocessor Trainers for 8085, Z80, 6502, 6809, 8086/88, 68000; Microcontroller Trainers for 8031, 80C196 KB/KC, 68HC11 and interface modules; DSP Trainers TMS 320 3X, TMS 320 C6711; In-Circuit Emulators; ROM Emulators; Microcomputer Development Systems; Universal Device Programmers; UV Erasers; PC compatible systems and Add-on Cards, Logic Analyzer, IC Tester, AD/DA cards, DIO cards etc.; Microprinters; Printer Support Products and Software Development Tools.



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NOTE : Specifications are subject to change without prior notice