**MPS 85-3**

**A COST EFFECTIVE AND VERSATILE MICROPROCESSOR TRAINER**

- **CPU:** 8085 operated at 3.072 MHz.
- **MEMORY:** Three 28 pin JEDEC sockets offer 64K bytes of memory as in the following config.
- **ROM:** 16K bytes of monitor program in 27128 EPROM.
- **ROM/RAM:** 16K bytes user expansion using any EPROM/SRAM.
- **RAM:** 32K bytes supplied using 62256 CMOS static RAM with battery backup.

**PERIPHERALS**

- **8255:** (Two Nos) One 8255 is supplied to give 24 programmable I/O lines. User can have 48 I/O lines by populating an additional 8255 in expansion socket.
- **8253:** 3 programmable interval timers - Timer 0 is used for implementing single step facility, Timer 1 is used for generating baud clock and Timer 2 is available to the user.
- **8251:** For serial communication. Supports all standard bauds from 110 to 19200.
- **8279:** To control 32 keys keyboard and 6-digit, half-inch size, seven segment LED display.
- **Bus Expansion:** Fully demultiplexed and buffered TTL compatible bus signals brought out through 26 pin ribbon cable connectors.

**SCOPE OF SUPPLY**

1. MPS 85-3 Trainer.
2. Windows/DOS Driver CD.
3. RS-232-C Cable.
5. Monitor Program Listing.

**SPECIFICATIONS**

- **CPU:** 8085 operated at 3.072 MHz.
- **MEMORY:** Three 28 pin JEDEC sockets offer 64K bytes of memory as in the following config.
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**INTERFACE SIGNALS:**

- **Parallel I/O:** 48 TTL compatible lines (2x8255) brought out through two 26 pin ribbon cable connectors.
- **Serial I/O:** RS-232-C serial interface signals through onboard 9 pin D type female connector.

**TROUBLESHOOTING:**

All interrupts except TRAP are available to user. If single step function is not required, TRAP can also be used by the user.

**POWER SUPPLY REQUIREMENT**

+5V DC @ 900 mA Approx.

**DIMENSIONS:**

- LxBxH: 365 x 275 x 55 mm Approx.
- Weight: 1300 gms Approx.
- Housed in an ABS Plastic moulded cabinet

**MAIN FEATURES**

- MPS 85-3 operates on SINGLE +5V power supply in onboard keypad mode or from host PC through RS-232-C interface.
- In both stand alone and serial modes, user can enter programs, run them at full speed and debug them through breakpoint and single step facilities.
- MPS 85-3 allows program editing through INSERT, DELETE and BLOCK MOVE commands.
- MPS 85-3 allows direct read/write from/to a specified I/O port through IN BYTE and OUT BYTE commands.
- It has four onboard ribbon cable connectors for easy expansion and two user defined function keys.
- Onboard battery backup for RAM.
- It supports many types of interfaces which are common for all ESA trainers.
- Built in text editor, Assembler and Disassembler facilities in serial mode.

**ACCESSORIES (OPTIONAL)**

- Interface Modules for training purpose: Keyboard, Elevator, Display, ADC with DAC, Dual DAC, Logic Controller, Traffic Lights, 8253 Demo, RTC, Tone Generator, Stepper Motor, Numeric Printer, 8-bit - 16 Channel ADC, 12-bit - 16 Channel ADC, Opto Isolated Input, Opto Isolated Output, LCD interface, Relay Output, DC Motor, RTD interface, etc.
- Power Supply: ESA PS M2 (SMPS); +5V @ 3.0A, ±12V @ 250mA, ±30V @ 100mA; required for some of the above interfaces.
- Power adapter: ADP DCS; +5V @ 3.0A (SMPS)
- Study Cards for 8255, 8279, 8259, 8251/8253, etc.
- Cycle Step Interface.
- EPROM Programmer Interface to program 2716 static RAM with battery backup.
- Audio Tape Interface.
- Universal Device Programmers; UV Erasers; PC compatible systems and Add-on Cards, Logic Analyzers, AD/DA cards, DIO cards, etc.; Microprinters and Software Development Tools.

**OUR PRODUCT RANGE:**

- Microprocessor Trainers for 8085, Z80, 6502, 6809, 8086/88, 68000; Microcontroller Trainers for 8031, 80C196, 68HC11, PIC Trainers, and Interface Modules; DSP Trainers TMS 320 C6711; Power PCs: In-Circuit Emulators; ROM Emulators; Microcomputer Development Systems; Universal Device Programmers; UV Erasers; PC compatible systems and Add-on Cards, Logic Analyzers, AD/DA cards, DIO cards, etc.; Microprinters and Software Development Tools.

**DEALER/DISTRIBUTOR**

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**NOTE:** Specifications are subject to change without prior notice