GSAS 85 is a microprocessor trainer with standard features like small keypad, LED display, monitor program etc, has become a very popular in training and development, probably due to its low cost. As microprocessor applications have become more and more popular, the requirement for a more advanced microcomputer trainer with powerful system software and additional hardware started growing. GSAS 85 is Complete single board microcomputer used for software and hardware development in research institutions and R &D labs.

The system firmware provides Stand-alone monitor, assembler, disassemble, Serial monitor and Drivers for EPROM Programmer and Parallel Printer Interface. GSAS 85 is supplied with comprehensive and user friendly documentation as well as windows based communication software with on line help.

**MAIN FEATURES**

- GSAS 85 operates on SINGLE +5V power supply in either 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 all full speed and debug them through breakpoint and single step facilities.
- GSAS 85 allows program editing through **INSERT, DELETE** and **BLOCK MOVE** commands
- GSAS 85 allows direct read/write from/to a specified I/O ports using **IN BYTE** and **OUT BYTE** commands.
- Onboard flat ribbon cable connectors for system expansion and two user defined function keys.
- Onboard battery backup for RAM
- It supports variety of interfaces most of them are common for all GSAS trainers.
- Built in Text Editor, Assembler and Disassembler Facilities in serial mode.
- File **Upload/download** to/from host PC using DOS and Windows based driver software.

**ACCESSORIES (Optional)**

- Power Adapter : GSAS ADP-DC5 ; +5V @ 3A (SMPS)
- Interface modules for training purpose: Keyboard, Elevator, Display, ADC with DAC, Dual DAC, 12 bit 8 Channel ADC, Logic Controller, Traffic Lights, Tone Generator, Stepper Motor, Opto Isolated Output, Relay Output, DC Motor Interface, TXDR ADC etc.
- EPROM Programmer Interface (2716 through 27512).
- 8751 adapter for the above interface.
- Power Supply : GSAS PSM2 +5V @ 3A, ±12V @ 250mA; +30V @ 100mA (required for some of the above interface).
- Study cards for 8255, 8279, 8251/8253 and 8259.
- Cycle Step Interface
- Parallel Printer cable.
- RS-232C Serial Cable.

www.gsasindia.com
SPECIFICATIONS

CPU

8085 Operating at 3.072 MHZ

MEMORY

There 28 pin JEDEC sockets offer 64K Bytes of memory as in the following configuration.

ROM : 16K Bytes of monitor program in 27128 EPROM.

RAM : 32K Bytes supplied using 62256 CMOS static RAM with battery backup.

ROM / RAM : 16K Bytes user expansion using suitable EPROM/SRAM.

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 the 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 de-multiplexed and buffered TTL compatible bus signals brought out through two 26 pin ribbon cable connectors for expansion.

INTERRUPTS

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

(Note : Specifications are subject to change without prior notice)

OUR PRODUCT RANGE : EDA Tools and FPGA development boards from ALTIUM, Zeroplus logic cum protocol analyzers, Portable Microscope, Testing & Measuring Equipment, Testing & Measuring Systems, Universal Device Programmers; ARM, PIC Trainer and Interface Modules, Incircuit test and Flash Systems; In-Circuit Emulators; ROM Emulators; Microcomputer Development Systems; Add-on Cards, AD/DA cards, DIO cards, Microprinters, Microprocessor Trainers for 8085, 8086/88; Microcontroller Trainers for 8031/51 etc.

INTERFERENCE SIGNALS

Parallel I/O : 48 TTL compatible lines (2 x 8255) brought out through two 26 pin ribbon cable connectors.


GENERAL

Power Supply Requirement : +5V @ 900mA (approx.)

Dimensions : LxBxH - 365 x 275 x 55 mm approximately.

Weight : 1300 grams approximately.

Housed in an ABS plastic moulded cabinet.

SCOPE OF SUPPLY

1. GSAS 85 Trainer
3. 8085 Assembly Language Reference Card.
4. Driver Software (CD) For Windows and Dos.
5. USB A-B Cable.

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