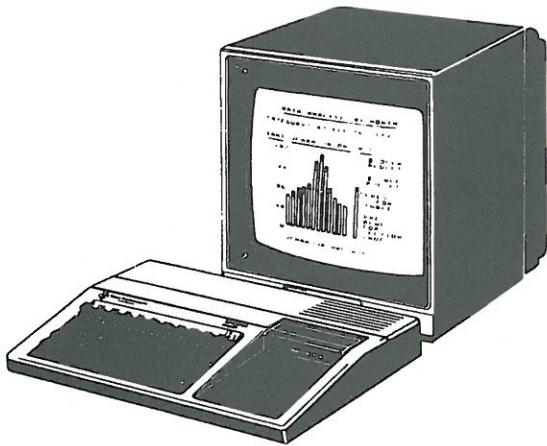


**Texas Instruments**  
**TI-99/4A Home Computer Products**



# Specifications



The TI 99/4A Home Computer System developed by Texas Instruments offers all members of the family a unique home enrichment tool. You don't have to know how to program to use the TI Home Computer. The heart of the system is a library of Texas Instruments Solid State Software Command modules and a growing list of programs developed by independent sources. Command Modules are rugged, permanent, plug-in computer programs which provide a wide array of capabilities and activities for any member of the family. Over 1,000 additional programs are available in diskette and cassette formats. If you do want to program — or want to learn — TI BASIC is built into the TI Home Computer. With other systems, it's not. So, the TI Home Computer saves you time, and money.

## SPECIFICATIONS

**CPU:** 9900 Family, 16-bit microprocessor, plus 256-byte scratchpad RAM.

**Memory:** System combined memory- 88K bytes.

Internal ROM memory supplied: 26K

External ROM memory (Solid State Software Command modules) Up to 36K bytes each. RAM memory supplied. 16K bytes

**Keyboard:** 48-key staggered Qwerty, full travel.

**Sound:** 9 octaves, 3 simultaneous tones (for full chordal music) noise and effects generator.

### Graphics:

- 256 combinations of background and foreground colours.
- 32 independently moveable sprites available to user.
- 16 easy to use colours.
- State-of-the-art circuitry provide exceptionally clear graphics and characters.

**Cassette Recorders:** The cassette cable, included with the TI 99/4A allows easy storage and retrieval of programs on regular audio tapes using your present cassette recorders.

**Built-in Software:** 14K byte BASIC interpreter. Internal Graphics Language interpreter, not user accessible. Internal 4.4K byte monitor, not user accessible.

**Video Modulator:** Supplied with TI 99/4A allows you to connect the Home Computer Console to your own colour or black and white TV set.

**Video Resolution:** 192 x 256

**Size:** 25.9 x 28.1 x 7.1 cm (10.2 x 15.0 x 2.5 in.)

**Weight:** Less than 2.3kg (5lbs)

**Colour:** 16

**Power:** 240V, 50HZ, 20W.

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## ACCESSORIES

### **Peripheral Expansion System:**

Lets you start simple, then gradually build up a sophisticated system by plugging in additional hardware cards. It centralizes most of your hardware in one place, eliminating extra cables and clutter. Accommodates the disk memory system RS-232 Interface, memory expansion option, and more.

### **Disk Memory System:**

Stores additional information that you wish to keep and refer to at a later time. It consists of the TI Disk Drive Controller and from 1 to 3 Disk Memory Drives. Handles variable length records, as well as sequential and relative files. Free disk space is automatically reassigned for file allocation. Comes with a pre-programmed Command Module that supplies disk utilities and file maintenance commands. Up to 90K bytes of information may be stored on each single-sided diskette.

### **RS-232 Card**

The RS-232 Interface Card, with two serial ports, lets you hook up a wide range of serially formatted accessories. It also has one parallel port to utilize a printer.

### **Memory Expansion Card:**

Increases the Home Computer's random access memory (RAM) from 16K bytes to 48K bytes. It allows you to run more complicated programs and solve complex problems faster.

### **P-Code Card:**

Allows the computer to access the UCSD p-System\*, PASCAL, and Pilot. High-level languages are compiled to an intermediate language called pseudo-code or p-code. The P-Code Card interprets these instructions, which are then executed by the computer at a much faster rate than BASIC. erating system allows a single drive system to execute Pascal programs and a dual drive system to develop programs.

### **Solid State Speech Synthesizer:**

Reproduces human speech electronically and accurately. Plugs directly into the Home Computer without external cables, letting it communicate verbally. Ideal for children too young to read the screen. Requires Speech Editor, Terminal Emulator II or other command modules that use speech (sold separately). The Terminal Emulator II Command Module provides text-to-speech capability whereby you can have the computer say anything within your own program.

### **Wire Remote Controllers:**

Lets you move objects on the screen. Each unit includes 2 eight-position remote controllers (joysticks) with side-mounted action button. An important accessory every serious game player should have.

## TECHNOLOGY

### **CPU Chip (NMOS):**

TMS9900 16-bit micro-processor. Minicomputer instruction set including hardware multiply and divide. Architecture with 16 general registers. Can address up to 64K bytes of memory. 4 interrupt lines. Video Display processor Chip (NMOS): Controls display memory and generates composite video signal. 24 lines of 32 characters with 8 x 8 dot resolution. Provides sixteen colours: white, gray, magenta, light yellow, light red, medium red, dark red, cyan, light blue, blue, light green, medium green, dark green, black, transparent. Provides 32 sets of 8 characters each with different foreground/background colours. Addresses up to 16K bytes of RAM for CPU or display. Sound Controller Chip (I<sup>2</sup>L): 3 voices with 9 octave musical resolution. 15 bit programmable noise source. 100mW audio drive with 30db control in 2 db steps. Solid State Software Command Modules. Up to 36K bytes PMOS ROM. Up to 8K bytes NMOS ROM. Simple plug-in module.