apricot PORTABLE

The Apricot Portable is at the very pinnacle of business micro innovation. With state-of-the-art technology including a full-size flat screen, speech recognition, infra-red keyboard and optional mouse, it has been designed to set new standards of excellence in performance, reliability and user satisfaction.

The Apricot Portable is a member of the Apricot family–a fully compatible range of personal computers with over 2,000 software packages already available.

So no matter how specialised your business or application, you can be sure that there's an Apricot computer and the right software to match your precise needs.

One of the most outstanding features of the Portable is its sophisticated speech recognition.

Two of the software packages supplied with the Portable, ACT–DIARY and ACT–SKETCH, have been designed to make full use of speech input. As an example, ACT–DIARY allows the user to enter diary information for any required date and time, record meetings or request alarms for important events, and then examine the contents of the diary by saying phrases such as "search for the next free period of 2 hours or more after next Wednesday."

A vocabulary of up to 4096 words is available, of which 64 can be used at any one time.

The microphone for speech input can be hand held or angled forward from its housing on the systems unit.

Processing capability

The Portable employs the 16-bit Intel 8086 as the main control processing element. Peripheral support for the 8086 is provided by a mixture of intelligent support chips.

Another processor–a NEC 7507 4-bit–is located within the keyboard. This performs keyboard scanning, encoding of detected keys into a suitable format for transmission via the infra-red link, and the implementation of a real time clock/calendar.

Memory

The Portable is fitted with a minimum of 256kbyte of system RAM, expandable up to 768k by fitting one of the standard Apricot RAM expansion boards–128k, 256k or 512k–into the Portable's single expansion slot.

The RAM expansion boards can also be used to effectively turn the Portable into a two-disk machine.

The Portable is supplied with a piece of RAM disk software as part of the basic input/output system (BIOS). By fitting any of the RAM expansion boards, it is possible to configure the memory expansion as an electronic disk or RAM disk.

Used in this way with the software provided with Portable, the RAM disk is actually much faster than a conventional disk.

Further expansion can be achieved by on-board memory expansion, supplied as a manufacturing option. This allows the Portable's memory to be upgraded to either 512kbytes or 1 Megabyte.

To increase system performance, the BIOS for MS-DOS 2.11 running on the Portable has been implemented in 32k of ROM, thereby reducing the amount of memory required by the MS-DOS environment to 45k, and leaving 211k in a standard configuration for applications programs. The speech recognition driver requires a further 55k, but this is only loaded into memory when required by an application.

Another feature of the Portable which also in effect "frees" more system memory for the applications programmer, is the use of a separate area of display memory instead of dual-porting the system RAM.

The Portable can also be easily upgraded into a Winchester based machine, using the Apricot MSD (Mass Storage Device) option. This consists of a pre-formatted 10Mbyte Winchester disk drive, a Winchester controller board and a separate power supply unit.

Disk drives

The Portable's disk drive is a Sony double-sided drive using 3.5″ microfloppy disks with a storage capacity of 720kbytes.

BIOS support is provided to allow single-sided 70 track microfloppy disks to be read from, written to and formatted within the Portable's double-sided drive.

Display features

The Portable's integral display is a full size flat screen liquid crystal display (640×200 dot) capable of displaying 25 lines of 80 characters.

A design feature of the display circuitry is that there is no differentiation between text and graphics–it treats them both identically. This makes it easier to mix text and graphics as demanded by the growing number of integrated text and graphics based applications and window orientated operating systems.

Versions of the Portable fitted with colour logic can drive ACT's high resolution colour graphics screen (640x256 resolution using 8 colours from 16, requiring an additional 111k of display memory), adding a whole new dimension to the Portable in that it is possible, through the windowing software, to run different applications on the two screens simultaneously.

Keyboard

The infra-red keyboard is a combination of superb ergonomics and technical refinement. Effective up to a range of 2 metres, the infra-red device allows the user to find the ideal working position. To ensure security in a group environment, a fibre optic 'light pipe' is provided to connect the keyboard to the systems unit.

It's a full size, low profile keyboard with 92 keys divided into a QWERTY layout (which include cursor, scroll and general editing keys), a calculator keypad and ten function keys. The sculptured keytops give a positive and accurate user action.

Also included are buttons providing reset, keyboard lock, set time and auto repeat rate facilities, and a time of day clock.

Printer and communication connections

The Portable has two ports available for connecting printers; a Centronics port for parallel printers and a RS232C port which can be used for serial printers.

A sophisticated RS232C communications port is provided as standard equipment for general purpose communications (via acoustic couplers, modems, direct connection to other micros, etc). It can also be configured for driving various printing devices (serial line printers, plotters typesetters, etc) and can be programmed to operate in both asynchronous and synchronous modes.

Other communications facilities available to the Portable are provided by optional expansion boards. The Portable is hardware compatible with the Apricot Local Area Network card and Apricot integral modem.

Typical applications that the Portable, complete with modem, can be used for are:

1. Emulation of various computer terminals which are used for communicating to mainframes and minicomputers.
2. Access to public and private databases.
3. Transferring files and data between the Portable and any other micro or computer with asynchronous modem facilities available.

Portability

Portability is achieved by the inclusion of a lightweight hard carry case. This also takes the optional mouse.

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Specification

Processor:
Intel 8086 running at 5MHz

Memory:
256kbyte System RAM. (Manufacturing options of 512kbyte or 1 Mbyte).
16kbyte Display RAM. (128kbyte if colour option fitted).
32kbyte of Boot ROM (expandable to 64kbyte).

Disk:
Double-sided MicroFloppy disk drive capable of being used with either 80 track double-sided (720kbytes) or 70 track single-sided MicroFloppy disks (315kbytes)

Printer Support:
Centronics port and RS232C port.

Communications:
RS232C port capable of being driven in either asynchronous or synchronous modes (Bisync, Monosync, HDLC or SDLC) with selectable baud rates (internally 0 to 9.6 kbaud; externally set by data communications equipment).

Expansion:
One Apricot pc/xi compatible expansion slot.

Voice Input:
Integral speech recognition system, applications/user configurable to provide voice driven applications/voice function keys.

Keyboard:
Full function "soft" keyboard incorporating QWERTY layout, calculator keypad, four machine specific function keys, and a bank of ten "fixed/general" function keys. Linked to the Systems Unit by infra-red. (Optional light-pipe connection for multi-machine environments).

Sound:
Programmable tone/noise generator and integral loudspeaker.

Display Features:
1. Base Model (i.e. no colour).
640×200 resolution bit-mapped flat panel display.
Default character font of 256 characters. Alphanumeric characters based within a 7×7 pixel matrix contained in an 8×8 cell.
"soft" font capability.
Software character attributes;
a. Reverse
b. Underline
c. Strikethrough
d. Intensity

2. All other models (i.e. with optional colour RAM)
Logic to drive a colour monitor and the integral flat panel display in the following modes.
a. 640×200 resolution colour monitor displaying 8 colours simultaneously with flat panel display in the standard 640×200 resolution mode.
b. 640×200 resolution colour monitor displaying 16 colours (integral display off).
c. 640×256 resolution colour monitor displaying 8 colours simultaneously with the flat panel display in the standard 640×200 resolution mode.
d. 640×256 resolution colour monitor displaying 16 colours (integral display off).
e. 640×400 resolution colour monitor displaying 8 colours simultaneously with the flat panel display in the standard 640×200 resolution mode.
f. 640×400 resolution colour monitor displaying 16 colours (integral display off).

Dimensions:
Systems Unit–
Length: 17.7 inches (450 mm)
Width: 6.8 inches (172 mm)
Height: 7.9 inches (200 mm)

Keyboard–
Length: 17.7 inches (450 mm)
Width: 6.6 inches (167 mm)
Height: 1.1 inches (28.5 mm)

Weight:
Systems Unit–10 lbs
Keyboard –2.9 lbs

Power Supply:
Either 240V or 110V operation
(selected by a configuration switch).
Current consumption:
Approximately 600mA–240V
Approximately 1.2A–110V

Inclusive Software:

Tutorial	MS-DOS 2.11
Activity	GSX
User Interface	Concurrent DOS (Optional)
ACT Diary	CP/M-86 (Optional)
ACT Sketch	GW Basic (Optional)
SuperWriter	Personal Basic (Optional)
SuperCalc	Dr. Logo (Optional)
SuperPlanner	

Programming Languages:
CBASIC–86
CBASIC–86 Compiler
'C' Language Compiler
Pascal/MT + 86
PL/1
Level 11 COBOL with Forms 2
Level 11 COBOL Animator
Assembler plus Tools
Display Manager
Access Manager
MBASIC Compiler
FORTRAN
Pascal
MS COBOL
MS Assembler

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