Epson's elegant PC: neat and efficient

The name Epson is very well-known when it comes to printers for personal computers and is now beginning to build a reputation for personal computers too. Now Epson has decided to attack the biggest computer market of all — that of the IBM PC. Epson's PC is not just another slavish Asian copy of the IBM though. It has been designed from the ground up and looks quite different from the much copied IBM machine.

by LEO SIMPSON

While it would seem that the market for IBM-compatible machines is very over-crowded and the pickings very slim, it is easily the biggest segment of the market and potentially still very profitable. Hence it is not surprising that Epson, the company which has perhaps sold more printers to go with IBM PCs than any other manufacturer, should decide to enter the market in its own right.

Not that the PC is Epson's first entry into the market. It has had a number of machines in production for some time now. But the PC is the full frontal attack on the PC market and is the machine which is likely to interest most users. So what particular flair has Epson brought to bear in designing its own PC? The first answer to this must be the neat styling.

When I first saw this machine at a computer show I was immediately attracted to it. Here is a machine which looks right and which takes advantage of some of the advances which have taken place since the IBM machine was first introduced. It is more compact too, so it takes up less desk space. While it is roughly the same height and depth as the IBM unit, it is less wide at 362mm versus 495mm. Epson was able to achieve this by stacking two half-height disc drives in the space needed for one full-height drive.

To the left of the drives are two small doors which flip down. The top one conceals the on-off switch. This is a small point but it is so much better than having it at the back as on the IBM. The other small door conceals the DIN socket for the keyboard which again is better than the rear socket on the IBM.

Below the disc drives is another wider door which conceals a set of ten DIP switches. Once again this is much more convenient than the similar switch inside the original PC. Also in this compartment is a reset switch which is a nice feature. It let's you do a "warm boot" of the system without having to press the Ctrl, Alt and Del keys simultaneously, which cannot be done in cases where the computer "crashes" and refuses to respond to the keyboard.

(A "warm boot" of the system simply means reloading the discs without turning off the computer which would normally cause the machine to go through its complete memory check procedure.)

The Epson keyboard is about the same size as that for the IBM machine but has a number of differences in the key layout. For a start, the Epson has bigger Enter, Shift and Ctrl (control) keys and the numeric keypad is slightly separated from the typewriter keys. Also moved are the keys for PrtSc (print screen), | and ~ characters, which sometimes cause problems for people used to conventional typewriter keyboards. Surprisingly though, the Epson does not have LED indicators for the Caps Lock and Num Lock keys (the latter changes the numerical keys from cursor movement keys) which is a definite drawback of the IBM keyboard.

Clip-out legs on the keyboard allow it to be adjusted for a better typing angle while rubber feet stop it from skating about on the desk surface. Overall weight of the keyboard is somewhat less than the IBM model because of the all-plastic construction which is used by most competing manufacturers.

The keyboard action is quite good though not quite up to the standard of the IBM which is still the best of any machine on the market, if you are a typist. If you're not a journalist though, this point is not so important.

SPECIFICATIONS

CPU	80C88 (4.77MHz)
ROM	16KB
RAM	Main RAM 512KB
Keyboard	Full-size, qwerty configuration
Interfaces	Centronics compatible port; RS-232C serial interface port
Operating system	Epson MS-DOS version 2.11
Disc drive	Two 360KB floppy disc drives standard: 20MB hard disc drives optional
Options/peripherals	Colour video board; monochrome video board; IBM PC options and peripherals

The rear of the Epson is also neater than the IBM. Standard features are the horizontally mounted DB-25 sockets for serial (RS232C) and parallel (Centronics) ports. Mains input and output is via IEC sockets (same as on the IBM PC). Neatest feature of the lot is the use of moulded plastic covers for the expansion slots. While there are five expansion slot covers on the rear panel, there are actually only three slots provided for the Epson PC and one of these will always be occupied by the monitor driver, which may be high resolution monochrome or colour graphics, both to the IBM standards. The review sample was fitted with a colour graphics board to drive a standard RGB monitor.

Another feature of the styling is the provision for standing the case on its side, with an optional desk stand. This can be useful, particularly if the processor is to be positioned off the desktop.

But while Epson have made the PC a very neat package, they haven't made it

easy to get into. To get inside the case, which you have to do if adding one of the expansion boards, you have to remove seven screws (two of which are covered), the side mounting feet, the moulded back panel and then the sheetmetal top. This reveals a neat interior which should be reasonably straightforward to service, if ever necessary.

Standard model and variants

As supplied, the Epson PC comes with 512 kilobytes of RAM as standard and it can be expanded up to the full 640K if desired. It employs the 80C88

processor running at 4.77MHz so that all programs run on the Epson will run at essentially the same speed as on the IBM PC.

The disc drives are standard 360KB 5.25in double-sided double density. Some users may wish for the higher capacity 3.5in format but Epson's choice

The Epson PC is supplied with two 360KB disc drives as standard, but can be fitted with a 20MB hard disc in place of the second floppy.

has two advantages: IBM compatibility and lower cost for blank floppies. As an option, the Epson PC can also be supplied with one floppy disc drive and a 20 megabyte hard disc in place of the second floppy.

In the last month or so, Epson have released a higher performance variant

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of the PC. Called the PC+, it comes with 640K of RAM, a V30 processor (NEC's higher performance version of the 8088) with selectable operating speeds of 4.77MHz or 7.16MHz, three-mode video controller board, clock calendar and five expansion slots. Then there is the PC+HD model which adds the 20MB hard disc in place of one floppy, to give a really high performance machine in a very compact package.

Software and documentation

The only software supplied with the Epson PC is Microsoft's MS-DOS version 2.11. This is supplied on a single floppy together with a number of utilities which may help beginners because they present a number of DOS (disc operating system) commands in a menu format. If you're already familiar with MS-DOS or PC-DOS, these utilities will be of little use.

Unlike the IBM PC, the Epson is not supplied with a ROM-based version of Basic, nor does it have Basic on the supplied DOS disc, as does the IBM. However, as part of its merchandising the Epson can be bundled with GW Basic, if desired.

Epson's documentation is very good. There are three spiral bound manuals which are packed in a carton along with the MS.DOS floppy disc. The first of these is the 56-page operations manual entitled "Setting Up and Getting Started". This is well written and illustrated so that it is easy to follow, especially for the novice operator who is setting up a system for the first time.

The second book is the 327-page "MS-DOS Reference Manual". This is the best written book on the subject of DOS that I have come across. It is streets ahead of the labyrinthine manual on IBM's PC-DOS. For this manual alone, the Epson must get full marks. Also good is the third manual entitled "Everyday with MS-DOS", which is more of a quick reference guide to oft-used commands.

Turning on the Epson is straightforward — just flip down the little door and press the On button. None of this reaching round the side to pull up a massive clunker of a switch. But then it comes as something of a shock to realise that Epson have managed to include a cooling fan which is even noisier than that for the IBM PC. Why can't these things be quiet? In my opinion, the fan on this machine is its worst feature. It takes away from its overall refined presentation.

By contrast with the fan, the Epson's disc drives are reasonably quiet and are not clunky like the drives on some machines.

In use, the Epson presented no problems at all with a variety of software. Epson claim to have used it with a wide variety of software and also claim to have used it with a large number of IBM expansion boards without finding incompatibility.

We have to conclude that the Epson PC is a fine machine which is sure to satisfy lots of users, giving many years of trouble-free service. Our only quibble is that noisy fan. Aside from that, Epson buyers have the advantage of continued backing from a large Japanese company with a proven track record in printers.
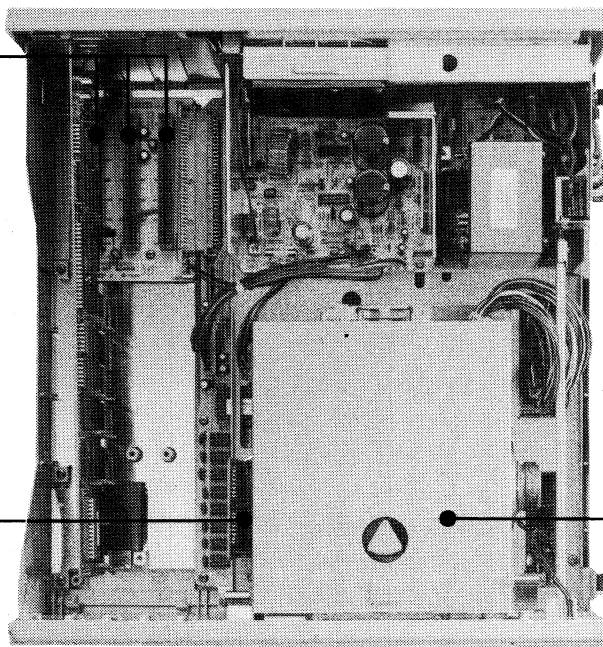
Recommended retail price of the Epson PC with two disc drives is $2450 plus tax. Fitted with a 20MB hard disc, the price is $3950 plus tax. For the Epson PC+, the recommended retail price is $3950 plus tax while the PC+HD is $5350 plus tax. None of these prices includes a video monitor.

For further information, contact your computer dealer or Epson Australia Pty Ltd, Unit 3, 17 Rodborough Rd, Frenchs Forest, NSW 2066. Phone (02) 452 5222.

(Editor's note: A review of the companion EX-800 Printer has had to be held over till next month.) ⓔⓐ

Option Card Slots — are IBM PC compatible slots, allowing you to add any commercially available IBM PC cards. Video board for display monitor is shown here occupying one slot.

RAM Board — a 256 KB RAM board connects here, providing a massive 512 KB.

Internal Disk Drive — high reliability, precision disk drive unit is built into the Epson PC. Action is smooth, silent, and dependable.

Reproduced from a brochure, this internal view shows the neat layout inside the Epson PC. The machine should be reasonably straightforward to service, if ever necessary.