

Micronews

New portable is a world beater

The most significant new computer of 1983 would have to be the Dulmont Magnum. With a full 16-bit processor and up to 256K bytes of RAM in a portable, battery-powered package the Magnum is an exceptional product by world standards — designed and manufactured in Australia.

President Computers will be distributing the Magnum through their 187 outlets nationwide. Managing director Tom Cooper goes so far as to say that the Magnum will establish Australia as the leader in the portable computer market. Certainly the development and production of the machine is a landmark for the Australian computer industry.

The Magnum computer is a "briefcase portable" measuring 305 × 280 × 50mm (W × D × H) when the LCD screen is folded down over the keyboard. The processor is the Intel 80186, an upward-compatible enhancement of the 8086 with a two-channel DMA controller, three 16-bit timers, interrupt controller, bus controller and clock circuit on the chip.

Essentially the 80186 provides significantly improved performance over the 8088 and at the same time reduces the manufacturing costs of the system.

The liquid crystal display of the Magnum is mounted in the front half of the top cover, which can be locked in one of a range of positions to allow the best viewing angle. The screen displays eight lines of 80 characters each, with fully-formed upper and lowercase characters.

In conjunction with the compact, typewriter-style keyboard the LCD screen makes the Dulmont Magnum a true "go anywhere" computer. Twelve user-definable function keys and a "Help" key integrated with the software available for the Magnum, allow a "menu-driven" approach which is certain to appeal to new users.

The operating system of the Magnum is MS-DOS 2.0, and various applications programs are contained in 128K bytes of internal Read Only Memory. As standard the Magnum comes with word processing software, an electronic spreadsheet program, a planner/diary based on the internal clock and calendar of the machine, and Basic-86 for those who wish to write their own programs.

Optionally available will be an accounting package and an engineering planning and calculation package, plus

other software running under MS-DOS. Two 128K byte ROM packs can also be plugged above the keyboard, allowing the on-board software to be further expanded.

Peripherals and expansion capacity have not been ignored. Two RS-232C serial ports and a Centronics parallel printer port are included as standard, together with a video output which supplements the LCD screen with an 80 × 25 line display on a video monitor. IBM-PC compatible dual double-sided 13cm disk drives will be available in an expansion interface which also includes an additional 256K bytes of RAM and a power supply for the system.

Another expansion box is under development with an eight slot motherboard which will take IBM-PC expansion boards. The intention is that anything which can be added to the PC will be compatible with the Magnum hardware.

Manufacturer of the Magnum, Dulmont, is jointly owned by Dulmision, a leading Australian supplier of electrical power line fittings, and Tramont, a subsidiary of the Belgian Tractionel group. Dulmont was formed in May this year when it became clear that the Magnum project would require substantial funding and international

backing if it was to be marketed in a manner suited to the unique new concept.

Printronic did the circuit boards, chips came from overseas, and research and development was initially supported by a \$350,000 grant from the Department of Science and Technology.

As a result of these combined efforts the Magnum is set to make a considerable impact on the portable computer market, both in Australia and overseas.

