

Sinclair QL

The Quantum Leap offers the most advanced microprocessor on any home computer, and the potential for half a megabyte of memory

All Sir Clive Sinclair's innovations in the field of home computers have represented quantum leaps both in terms of technology and value for money, but his latest microcomputer is the first of his machines to take that description as its name: the Sinclair Quantum Leap (QL). At £399, it is aimed at a growing number of users who are either serious computer enthusiasts or have business as well as home applications in mind. As such, it represents very serious competition for machines like the Commodore 64 and BBC Model B, though in terms of technical specification it is dramatically superior.

It is quite apparent that the QL has been designed by stringing together all the components and features that currently represent the height of computer fashion. Making a break from the usual choice of Z80 or 6502, the CPU is a member of the Motorola 68000 family, which is currently the most sophisticated microprocessor found in any microcomputer and used in machines like Apple's Lisa (see page 261). However, the CPU is a

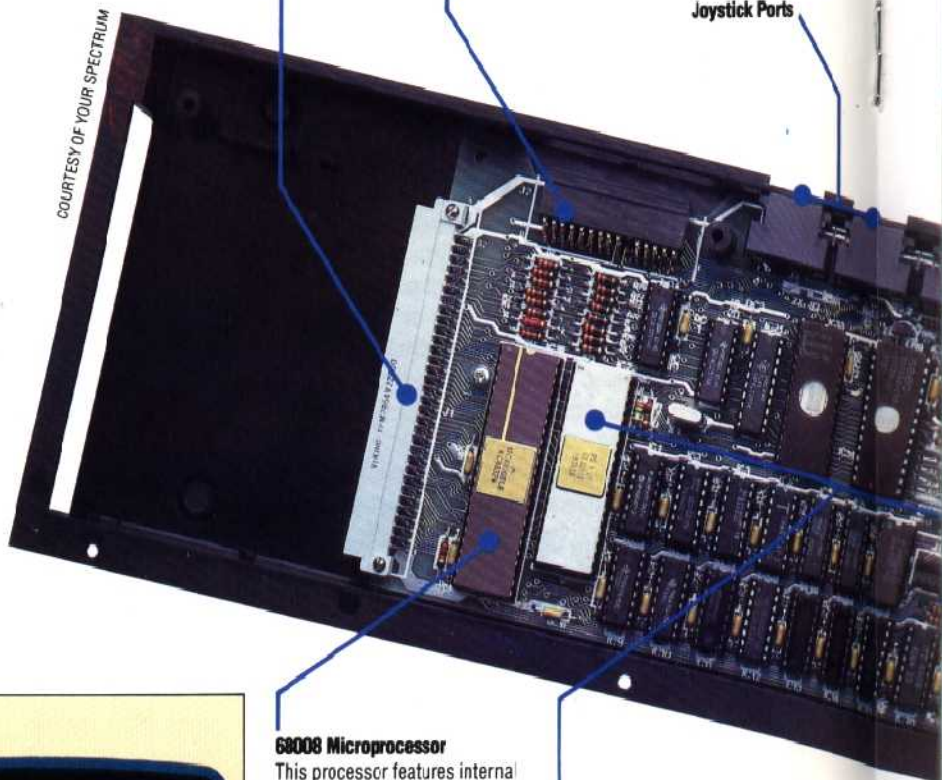
Expansion Interface

Peripherals, and up to 0.5 Megabytes of RAM can be coupled on here

ROM Cartridge Slot

Up to 32K of additional ROM can be plugged in here

Joystick Ports



68008 Microprocessor

This processor features internal 16- and 32-bit registers, with an 8-bit external data bus

Custom Chips

An increasing number of new computers feature a custom-designed chip. The QL has two, to handle the display and various interfaces

QL Software



QL Quill is a word processing package that displays the text on the screen in the same format as it will be printed



QL Abacus is a spreadsheet with the unusual feature that cells can be referred to by name instead of just co-ordinates



QL Archive is a database package. Record layouts can be designed by the user, with the aid of a screen editor



QL Easel is a graphics utility designed for producing graphs and charts, handling aspects of design like scaling automatically

68008, which means that though its internal registers are 16-bit (and it can perform many functions across a full 32 bits), its external data bus is only eight bits wide. This will slow the operation of the CPU very slightly, because the loading and storing of the registers will have to be done in halves. But this also means that the cost of the memory chips is kept down, and economics is often a prime consideration in Sinclair's choice of components.

The QL comes with 128 Kbytes of RAM as standard, but will be expandable to 512 Kbytes (or 'half a meg', as it is termed) with future add-ons. This large memory is particularly useful for business applications, as it reduces the frequency with which the program must refer to off-line storage. This storage consists of two Microdrives built into the casing, offering around 100 Kbytes each. Though this does make the QL a self-

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