

**VDU Board**

The display generator is not part of the main board, as in smaller machines, but a separate device that is sent controlling signals by the CPU. Video display units are available with either 40 or 80 columns

RAM Board

The main CPU board cannot hold enough RAM to provide a usable system, so further RAM may be added, up to the addressing limit of the Z80 which is 64 Kbytes

Z80 Bus Connections**CPU Board**

This carries the Z80 CPU, part of the RAM, the ROM, and most of the essential parts needed to run the machine, such as a keyboard port

HRG Board

Full colour high resolution graphics can be added to the 380Z simply by plugging in this board

Power Supply

Huge, heavy and very hard to hurt

Reset Button**Lock**

This allows the machine to be locked on to prevent anyone from interfering with critical programs

Fan

Because the power supply has the capacity to handle several add-on boards without modification, a fan is needed to assist cooling

Two Disk Drives

Research Machines 380Z

PRICE

£2,062 (5in disk system)
£3,395 (8in disk system)
Educational discounts available

SIZE

595 x 425 x 215mm

CPU

Z80

CLOCK SPEED

4 MHz

MEMORY

Up to 6 Kbytes ROM
56 Kbytes RAM

VIDEO DISPLAY

24 lines of 40 or 80 characters, seven colours with up to 255 shades. Graphics resolution of 320 x 192 and 160 x 96

INTERFACES

RS232 serial, cassette, parallel printer

LANGUAGE SUPPLIED

Research Machines extended BASIC

OTHER LANGUAGES AVAILABLE

ALGOL, FORTRAN, and CP/M standards

COMES WITH

Manuals for installation, CP/M, disk system, cassette system and BASIC utility programs on disk

KEYBOARD

60 word-processor quality keys

DOCUMENTATION

Excellent, though a little dry. The information is comprehensive and easily referenced

memory, and may not leave sufficient room for sophisticated user programs. For this reason, three versions of the BASIC are provided, with either all, some or none of the HRG package included, depending on how constraining your memory requirements are.

The use of the HRG package is not limited to BASIC, and as a simple machine code file it can be accessed from any language. Since the 380Z is generally run under CP/M (see page 410), this means that a wide range of languages are available, but the machine is highly unusual in the microcomputer world in having a version of ALGOL configured to run on it.

This language, which many European scientists prefer to FORTRAN (the language favoured in North America for science purposes), resembles PASCAL and is particularly strong in complex mathematical calculations, such as those involved in structural design. This is another factor that makes the machine attractive to educationists.