



Commodore Vic-20

Commodore's smallest machine offers quite sophisticated features to the home user at a reasonable price

Commodore Business Machines was responsible for one of the first home micros — the Personal Electronic Transactor (PET) — which became available to the public in 1977. In 1981, it launched the Commodore Vic-20, which incorporates many of the same features as the PET. Not only does the Vic use the same 6502 microprocessor, but even the same BASIC in ROM, unfortunately not Commodore's most recent and efficient version.

The most obvious difference between the two machines lies in the Vic's additional graphics capabilities. Its name is taken from the dedicated chip that drives its screen display — the Video Interface Chip. Up to 16 colours are available, though the display is made up of a frame or border, for which eight colours are available; a background, which can be any one of the full set of 16; and the individual characters or symbols, which can be any one of eight.

The character set itself is impressively large, offering both upper and lower case and two sets of graphics characters from 62 keys, with a further four dedicated keys that can be used — shifted or not — to provide eight programmable functions. The design of the keyboard is particularly good, both ergonomically and technically.

The main drawback of the Vic is its small memory capacity — only five Kbytes, which is reduced to 3.5 Kbytes after the operating system has appropriated RAM for the screen and other internal requirements. However, up to 32 Kbytes

Cassette Port

The Vic-20, in common with all other Commodore micros needs a specially made cassette recorder, which plugs in here

User Port

This 24-pin connector is a serial port, used to drive a variety of additional peripheral devices

Peripheral Interface Adaptor

These chips control all the Vic-20's Input/Output operations and have some processing capability of their own. They are able, for example, to convert between serial and parallel formats

Keyboard Connector

The keyboard connects here to the peripheral interface adaptor

of memory can be addressed, and additional memory is available from a variety of sources.

Interface ports are provided for paddles/joystick/light pen, games cartridges/memory expansion, printer/disk drive, cassette and television, and there is one that meets the RS232 serial standard, which could be used with a modem or non-Commodore printer. In addition, a comprehensive range of hardware add-ons is available, in common with the more recent Commodore 64 (see page 49).

Printer



Cassette Drive



Vic Peripherals

Commodore supply a cassette drive, a disk drive and a range of printers for the Vic-20, as well as joysticks. Alternatively, a wide variety of devices are available from other manufacturers, often at a lower price. Most important among these, perhaps, are the memory expansion modules

Disk Drive



Video Interface Chip

This purpose-built device is used to control the appearance of the screen, and also the Vic-20's three-voice sound generator

Random Access Memory (RAM)

The Vic-20 is fitted with 5K of RAM, though this can be expanded externally to 32K