

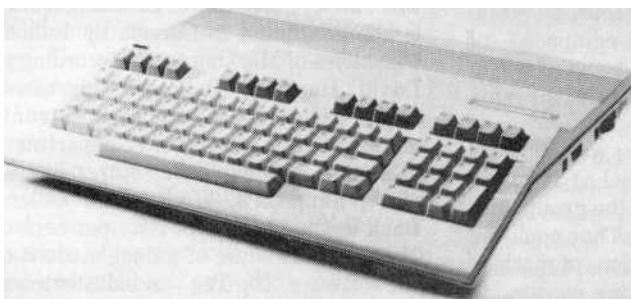
# New Computers At The CES Show

by Chris Bennett

Commodore introduced two new computers at the winter Consumer Electronics Show held in Las Vegas in early January. A variety of new peripherals and software was also shown.

## Commodore 128 Personal Computer

The Commodore 128 Personal Computer is a sleek machine in a light beige case. It has a 92-key typewriter-style keyboard with a 14-key numeric keypad, eight programmable function keys, individual cursor keys, a HELP



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key, a 40/80 column key, and other keys called LINE FEED, NO SCROLL, ESCAPE, TAB, ALT and CAP LOCK. The machine comes with 128K of RAM, user selectable 40/80 column full colour display, and the best BASIC of any Commodore machine. It will be available in the spring, and should sell for about 250 dollars U.S.

Rumours about the C-128 have been flying about for some time, but they were always irritatingly vague or contradictory. Now we can see why - this is a complex machine. For starters, the C-128 has three operating modes. The Commodore 64 Mode is said to be 100 per cent compatible with all C-64 software, both on disk and on cartridge. The CP/M Mode uses Digital Research's CP/M 3.0 operating system. This means that all software written for CP/will run with little or no modification. The Commodore 128 Mode features Commodore's most powerful version of BASIC called - would you believe - BASIC 7.0. This is an extended BASIC after the pattern of the Plus/4 and C-16, but with powerful new commands for dealing with sprites and sound. Video output in Commodore 128 Mode can be set to either 40 column colour, or to 80 column colour (in conjunction with the new 1902 RGBI monitor).

The C-128 can be expanded to 512K of RAM, although only 128K can be used for BASIC. The 8502 (6502 Com-

patible) microprocessor runs at either 1 or 2 MHz clock speed. The Z80A microprocessor used for CP/M mode runs at 4 MHz, while the 6510A microprocessor (for C-64 mode) runs at 1.02 MHz. The 80 column screen has 640 by 200 pixels and the video outputs include a digital RGBI, chroma/luma, standard NTSC composite video and RF/TV.

While the C-128 will work with existing peripherals, the full power of the machine will not be realized unless the Commodore 1571 high-speed disk drive and 1902 RGBI monitor (80 column colour) are used.

## Commodore LCD Personal Computer

The Commodore LCD Personal Computer is a briefcase-size, lightweight computer complete with built-in applications software and a 300 baud auto-answer/auto-dial modem. Weighing about five pounds, the LCD lap computer has built-in Commodore BASIC 3.6, 32K RAM, 96K ROM, and one of the largest screens available in its class (80 columns by 16 line Liquid Crystal Display). It features a 72-key keyboard with eight programmable function keys and four cursor keys, and can run on 4 AA alkaline batteries for 15 hours.

The software built into the LCD computer includes a word processor, a file manager, a spreadsheet, an address book, a scheduler, a calculator, a memo pad and a terminal emulator. The machine also has a serial I/O port for Commodore disk drives and printers, an RS-232C port, a Cen-



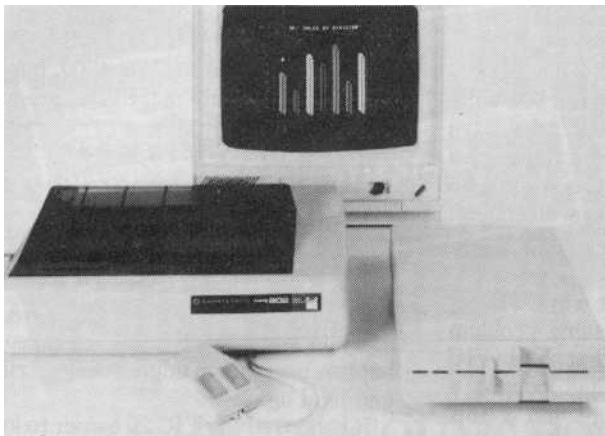
*The Commodore LCD Personal Computer can run on 4 AA alkaline batteries for 15 hours.*

tronics port, modular phone jacks for a direct connect modem, an expansion port, and a bar code reader port (Hewlett/Packard Compatible). The LCD will be available

during the first half of 1985 at a cost of about 500 dollars U. S.

## New Peripherals

Besides the new computers, Commodore showed a variety of new peripherals, including a fast disk drive, hi-res monochrome and colour monitors, and two new modems.



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The Commodore 1571 is a double-sided disk drive that will work with the C-128 in Commodore 64 Mode at 300 cps (just like the 1541); in C-128 Mode, it runs at 2000 cps; in CP/M Mode it will read at 3500 cps and will also read most CPM format disks, including IBM system 34, Kaypro and Osborne. In C-128 mode, the 1571 uses both sides of the disk, for a total of 350K of storage. In the CP/M mode, the 1571 will hold about 410K of formatted data. In the C-64 mode, the standard 170K on one side is available.

The Commodore 1901 Monochrome Monitor is suited for applications such as wordprocessing, database, and spreadsheets that need a high quality 80 column non-colour display.

The Commodore 1902 RGBI/Composite monitor complements the C-128 computer. It is a high-quality colour monitor that will provide a clear display in either 40 or 80 column mode. No special cables or interfaces are needed. The monitor is compatible with all computers using RGBI or composite output, as well as with videocassette recorders.

The Commodore 1660 and 1670 are two new modems for the Commodore 64, Plus/4 or Commodore 128. The 1660 is a 300 baud direct-connect modem with auto-answer, auto-dial, and a built-in speaker. The 1670 is a 300/1200 baud direct-connect modem that features auto-answer/auto-dial, auto baud rate and parity, and a built-in speaker.

*The March issue of TPUG Magazine will contain in-depth coverage of the new hardware and software announced at CES.*