

NEW ZEALAND'S PERSONAL COMPUTER MAGAZINE

BITS & BYTES

September 1983: \$1.25

**Two new colour computers reviewed:
Dick Smith's low priced VZ 200
and
the powerful Colour Genie**

**Customising the System 80
plus new graphics card**

**Multiplan spreadsheet
program reviewed**

**Telecommunications
for the Micro user
— tap into OASIS**

BIRTHDAY ISSUE



Colour Genie

A photograph of the Colour Genie computer system, including a monitor, keyboard, and system unit, set against a white background with a red and blue decorative border.



VZ200

A photograph of the VZ200 computer system, featuring a keyboard with orange and black keys and a system unit, set against a white background with a red and blue decorative border.



**AMAZING
BREAKTHROUGH!**

Colour Computer \$349

Now every family can afford their own personal computer!



The incredible P&P \$5.50
**DICK SMITH VZ 200
Personal Colour Computer**

Here it is at last - the breakthrough you've been waiting for! A personal colour computer with all the right features: colour graphics, sound standard Microsoft BASIC for easy programming, a whopping 8K bytes of RAM memory, the ability to work with a standard TV set, or monitor if you prefer, and much more. Yet thanks to modern electronics and our buying power, the Dick Smith VZ 200 will cost you only \$349.00 - far less than any comparable computer! There'll never be a better time to invest in your family's future.



Cat X-7200

Yes, for just \$349.00 the Dick Smith VZ 200 gives you amazing computing power - far more than many machines two, three or even four times the price. Now you can find out what computers are all about. The kids can use it with their school work. It can keep track of your home budget. It can even help you in your business!

Still not convinced? Try our exclusive 7 day money back satisfaction guarantee.

Buy the Dick Smith VZ 200 Colour Computer and try it in your home for up to 7 days. If you're not absolutely delighted, you can return it in original condition and packaging for a full refund.

You'll owe nothing - not even an explanation.

READ WHAT THE EXPERTS SAY:

"Overall, this is a great little computer, and one that is likely to change the face of Australian personal computing.
And from the editor:
"I'm certainly going to buy one".
(May 1983 issue, Australian Personal Computer)

- Simple and safe to use
Operates from low voltage via a mains adaptor, which is included in the price. Absolutely safe - even for children.
 - Works with any normal TV set
It simply plugs in, no need to buy an expensive monitor (unless you prefer to use one).
 - Uses a normal cassette recorder
No need to buy a high cost computer type recorder.
 - Easy to read manuals, Demo cassette.
When you buy the VZ 200, you get not one but two manuals, a User's Manual and a BASIC Manual, plus a Demonstration Cassette, and a book of simple programs.
- A complete, ready-to-go computer that plugs into your TV set! If required, these options will be available shortly:

- 16K MEMORY EXPANSION MODULE: Cat X-7205 \$149.00
- PRINTER INTERFACE MODULE: Cat X-7210 \$99.00
- DATA CASSETTE: Cat X-7207 \$129.00

That's the incredible

DICK SMITH VZ 200

ONLY AVAILABLE FROM

SOFTWARE -

To get your computer up and running.

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- Matchbox: Cat X-7231
- Poker: Cat X-7232
- Blackjack: Cat X-7235
- Hangman: Cat X-7233
- Slot Machine/Knock off/Russian Roulette: Cat X-7234
- Circus: Cat X-7236
- Biorythm/Pair Matching/Calendar: Cat X-7237

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- Matrix: Cat X-7253
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DSE/NZ032/JOP



HARDWARE REVIEW

Dick Smith VZ200: good value

By ROB FULLERTON

Dick Smith Electronics has released another personal computer on the market to follow closely on the heels of the Wizzard computer. The VZ200 uses a Z80A processor running at 3.58MHz, which must be the fastest clock of all the low-priced personal computers to date.

The computer is quite small, being only nominally larger than the keyboard and 50mm thick. It comes in an attractive white plastic case with the keyboard built into a sloping matte black surround.

A power-indicator LED is the only other feature on the front of the case. An on/off switch is located on the right-hand side. Across the back of the computer there are four sockets for 9v DC power, cassette tape, video monitor, and TV output. There are two edge connectors covered by protective metal plates for the add-on memory expansion and peripheral interface. Power comes from a separate large plug pack rated at 12v 1A. It has a generous length of lead.

Also included with the computer is a lead for connection of a standard audio cassette for program storage and a lead for connection to a monitor or TV. This TV lead is, unfortunately, only long enough to reach to a set placed on the same table as the computer. Other items included in the package are a BASIC reference manual, a book of application programs and a demonstration cassette.

Keyboard

The keyboard is the same used in the Wizzard computer, which is not surprising, since both computers are made by Video Technology, Ltd, of Hong Kong. The moulded-rubber keys are set in a QWERTY arrangement with the standard ASCII character set. Each key performs up to four functions, including the ASCII character screen printed on the keytop, the single key Microsoft BASIC commands, the cursor control, and the on-screen editing.

The alternative functions are accessible by use of the CTRL key in

the same manner one would use the SHIFT key. The single-word BASIC commands are printed on the computer above and below each key. All keys except CTRL have an auto repeat facility if held down for more than one second. This is very useful for cursor movement.

Comments I made about the keyboard of the Dick Smith Wizzard computer (*Bits & Bytes, June*), also apply to the VZ200. The longevity of the screen-printed characters on the keys and the long-term contact reliability of the key switches remain to be proven.

Video display

The VZ200 can use either a colour TV set or a colour monitor for display as both RF and video outputs are provided. The internal RF modulator is tuned to channel 1, Australia, but the picture in N.Z. will come up on channel 2 because of TV channel allocation differences between the two countries. Some re-tuning will be necessary to get the best pictures.

The display area for the computer occupies a rectangle covering about two-thirds of the screen. In the text mode there are 32 characters per line with 16 lines displayed. Even with this smaller active display area the characters are sharp and easy to read. The stability of the picture was a little disappointing, however, with persistent diagonal ripples visible on both the TV and monitor displays. The upper-case ASCII character set is displayed and can also be set to inverse video.

Editing

An excellent feature of the VZ200 is the on-screen editing capability. The cursor control keys allow you to position the cursor over any mistake in a line and then, by pressing INSERT or RUBOUT, change the required characters. This saves having to re-type the whole line again as with some computers. The auto-repeat function is very useful here as continued pressing of the RUBOUT will erase as many characters as required. These editing functions rank as one of the most desirable features of this computer, especially for the beginner.

Graphics

Two display modes are available, text mode and graphics mode. In the text mode, the ASCII character set is displayed as well as the 15 chunky graphics shapes. These characters may be displayed in eight different colours with a choice of two

HARDWARE REVIEW

background colours. For graphics mode the screen is divided into 128 x 64 pixels, each individually addressable. Each pixel may be programmed on or off with the SET and RESET commands. The pixels may be any of four colours with two background colours. The 8192 pixels displayed in the graphics mode produce quite acceptable resolution for games and data displays.

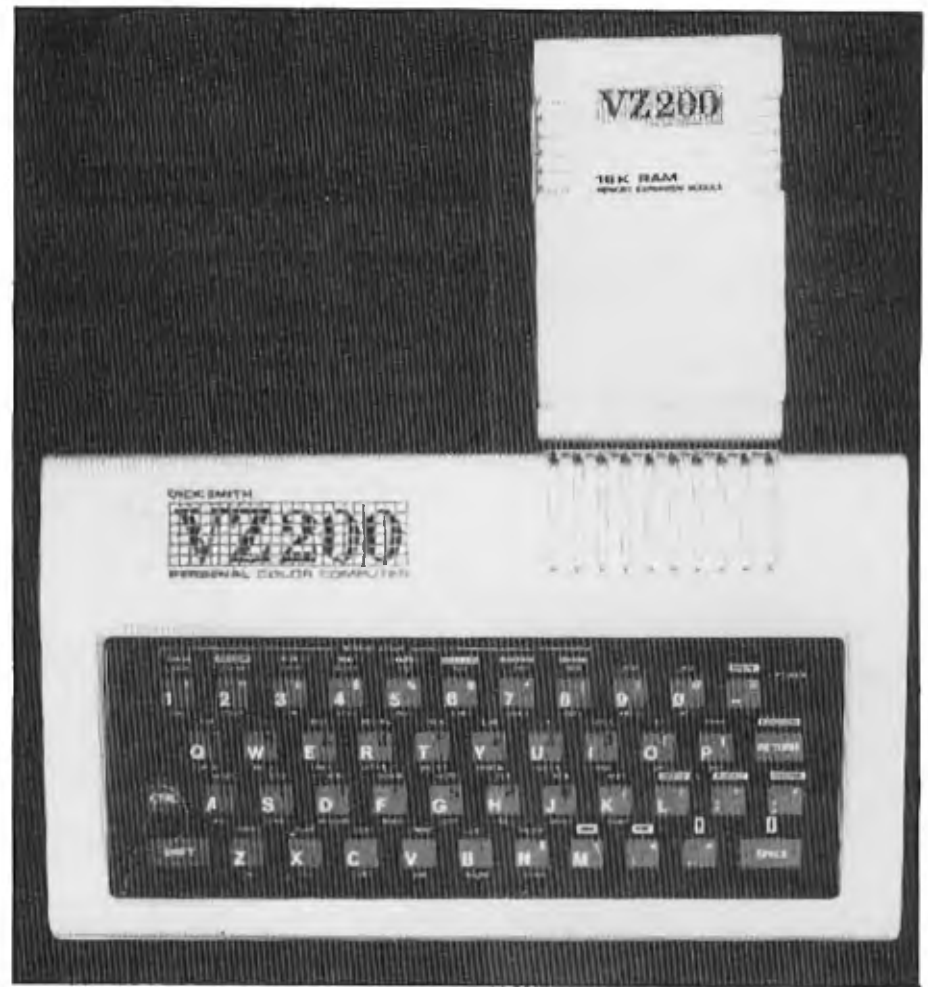
Sound

It is possible to generate sounds on the VZ200 through the internal piezo speaker. Control of the tone frequency and duration is by the SOUND command. Programmable music notes covering 2½ octaves with nine different note durations are available. The sound is very tinny, and with only one channel it can hardly be considered suitable for "serious music programming" as claimed in the advertising leaflets. It is adequate for games only.

Cassette data storage

For program and data storage the VZ200 provides a connection to an audio cassette recorder. An interconnection lead is supplied with two miniature jack plugs on one end and a stereo plug on the other. The stereo plug goes into the computer socket marked tape and the others plug into the ear and mic sockets on the recorder. A demonstration tape comes with the computer which shows off the colour and graphics capabilities.

I found some difficulty in loading this tape as the volume setting for



The VZ200 with the 16K RAM expansion module

the recorder playback appears quite critical for a successful load. There is no provision for cassette motor control. The difficulty is cured, however, by putting a 15-Ohm

resistor in parallel with the earphone connection, i.e. soldering it between the two wires.

Five BASIC commands handle storage and retrieval of data from the