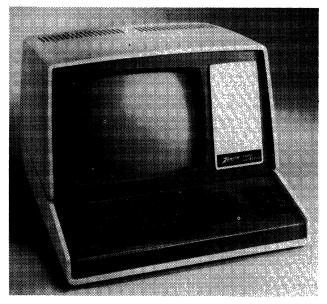# Zenith Data Systems Z19 Video Terminal

The Zenith Z19 Video Terminal features a 12-inch, non-glare screen with a capacity of 2000 characters. In addition to the conventional typewriter keyboard, 12-key numeric pad and eight special function keys are standard.

Zenith Data Systems' CRT terminal.

The Z19 features a 12-inch diagonal display screen, which accomodates 1920 characters over 24 lines of 80 characters each, with a 25th user-status information line. The terminal generates 95 ASCII characters plus 33 graphics symbols. A 12-key numeric pad and 8 special function keys are standard.

ANSI and DEC VT-52 compatibility are also standard.

Purchase price for the Z19 is $995. Quantity discounts are available. The terminal is also available from the Heath Company in unassembled form for $695.

MANAGEMENT SUMMARY

The Zenith Z19 Video Terminal was introduced in June 1979. It is a basic conversational CRT which is capable of DEC VT-52 compatibility and upgradable to the Zenith Model Z89 user programmable microcomputer. This report addresses only its capability as a display terminal.

The model features a 12-inch diagonal display screen with a 24-line by 80-character capacity, plus a 25th user status line for a total capacity of 2000 characters. Its 84-key typewriter style keyboard contains 60 alphanumeric keys, 12 function/control keys and a 12-key numeric pad for data entry. A row of eight special function keys allows the user to customize the Z19 to system needs.

The 128-character set is displayed in green on a dark background. The 95 ASCII characters are formed by a 5 x 7 dot matrix for upper case or a 5 x 9 dot matrix for lower case characters with descenders. Also, 33 graphics characters are formed via a 10 x 12 dot array.

DEC VT-52 compatibility is standard and can be configured from the keyboard, an outside computer, or an interior switch. Ergonomic features include a non-glare screen, enlarged high-use keys for easier operator reach, and an audible key click.

The Z19 is also available for do-it-yourselfers from Heath Company (St. Joseph, MI) as the Heathkit H19. The unassembled terminal costs $695.□

CHARACTERISTICS

VENDOR: Zenith Data Systems Corporation, 1000 Milwaukee Avenue, Glenview, IL 60025. Telephone (312) 391-8860.

DATE OF ANNOUNCEMENT: June 1979.

DATE OF FIRST DELIVERY: October 1979.

NUMBER DELIVERED TO DATE: Information not available.

SERVICED BY: Zenith Data Systems service centers and Heathkit Electronic Centers.

CONFIGURATION

The Z19 is a standalone, desktop display terminal controlled by a Z80 microprocessor. It contains an attached, typewriter style keyboard, a 12-key numeric pad, and is capable of emulating the DEC VT-52 terminal.

TRANSMISSION SPECIFICATIONS

Transmission is asynchronous in half- or full-duplex modes, by character or block. Speeds are switch-selectable at 12 rates ranging from 110 to 9600 bps. Even, odd, mark, or no parity is selectable. An EIA RS-232-C interface is provided.

DEVICE CONTROL

The Zenith Z19 is microprocessor controlled. Transmission is performed in either character or block mode. The terminal contains a 128-character buffer for receiving and holding characters until they can be processed; the operator is alerted via an audible alarm in the event that this capacity is exceeded.

Local and software controllable escape sequences allow the operator to select and use specific functions.

Certain operating modes can be enabled/disabled from the keyboard. These include: enable 25th line; no key click; hold screen; block cursor; cursor off; keypad shifted; alternate keypad; auto line feed; and auto carriage return. These ▶

Zenith Data Systems Z19 Video Terminal

functions revert back to their original status (as defined by the terminal logic control board) when the terminal is reset or the terminal is turned off and on again.

Other operating modes of the Z19 include:

Hold Screen Mode, which allows the operator to control when new information will be dislayed on the screen. Used with the Scroll key, the operator can view new information, either by line or a whole page (24 lines) at a time; Reverse Video Mode, to display dark characters on a light background; Graphics Mode, which allows the operator to display 33 special graphics symbols using 26 lower-case keys and seven other symbol keys (the terminal can be placed in Reverse Video in Graphics Mode to increase the number of graphics characters); and Keypad Shifted Mode, to transmit shifted functions without using the Shift key.

The cursor, which establishes the screen position of the next character to be keyed, appears as a blinking underline or reverse video block, or can be turned off. The cursor is addressable from the keyboard or computer. Cursor controls include left, right, up, down, home, save cursor position, cursor position report, tab, and backspace.

Editing functions include insert/delete character, insert/erase line, erase to end of line, erase to end of page, erase beginning of line, and erase beginning of display.

Additional escape functions for the Z19 are: keyboard enabled/disabled; wraparound at end of line; discard at end of line; identify as VT-52; transmit 25th line; and transmit page.

In addition to the above functions, eight special function keys are located at the top of the keyboard. These transmit two-character escape codes to the computer. The meanings of these codes can be defined to suit the needs of the user.

The terminal can be operated in the off-line mode by using either the off-line or Control key. In both cases the terminal is disconnected from the computer. This permits various operations, i.e., editing, graphics formation, without disruption by the computer program.

COMPONENTS

DISPLAY UNIT: The Z19 contains a 12″ diagonal display screen with a capacity of 2000 characters, displayed over 25 lines of 80 characters each. The 25th line is usually used to display program or function key status information. The terminal utilizes a 128 character set, 95 ASCII and 33 graphic. Upper case characters are formed by a 5 x 7 dot matrix; lower case, with descenders, by a 5 x 9 dot pattern. The graphics symbols are formed on an 8 x 10 dot matrix. Characters are displayed in green on a dark background (normal video).

KEYBOARD: An attached, 84-key (60 alphanumeric, 12 function/control) typewriter style keyboard. A 12-key numeric pad is standard, with direct cursor control for corrections and editing. A row of eight special function keys is located at the top of the keyboard. High-use keys are enlarged for easier operator reach. The unit also generates an audible alarm, and a key click to validate data entry.

PRICING

The Z19 is available for purchase only from Zenith for $995. Quantity discounts are available. The terminal is also available from Heath Company in kit form for $695.

Zenith offers a 90-day warranty which includes all parts and labor, and includes on-site service. Extended service contracts from 200 Zenith Data Systems service centers worldwide are also available. Carry-in service is available from 75 Heathkit electronic centers worldwide.■