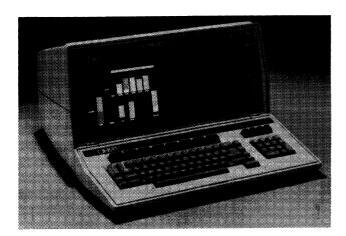# Direct VP800 Series Video Display Terminals

Direct's VP825 and VP828 offer full compatibility with Hewlett-Packard's V/3000 software, for screen management and data entry applications. The VP828, shown here, is a replacement for HP's popular 2645A terminal. Design features such as the 12-inch non-glare display screen and the detachable fold-up keyboard are standard on all of Direct's video terminals.

MANAGEMENT SUMMARY

Direct, Inc. was founded in 1979 and introduced their first video display terminal, the VP800/A, in April 1980. Direct currently offers six different display models: the VP800/A, VP800/B, and VP800/C, which are DEC VT100-compatible; the VP825 and VP828, which are Hewlett-Packard emulators; and the VP853, a Data General 6053-compatible model. Direct's long term plans are to enter the office automation field with products based on their existing terminal line; the company has already introduced two high-end intelligent terminals, the OA1000 and OA1025.

All six models include the following features: fold-up detachable keyboards; non-glare 12-inch screen; self-test diagnostic capability; eight soft program function keys (16 functions); 80- and 132-column display modes; a choice of white or green phosphor display; and a line drawing set.

The newest and most significant members of the Direct terminal line are the VP825 and VP828. The terminals are compatible with Hewlett-Packard's V/3000 software, giving Direct the first HP-compatible terminals on the market. The VP825 is a replacement for Hewlett-Packard's HP2622A, while the VP828 is designed to replace the HP2645A. The Direct terminals are priced lower than the HP models; they do not provide all of the HP features, but do add some features that the HP models do not possess, such as 132-column capability. The Direct models do provide full V/3000-compatibility, for screen management and data entry applications.

Direct's ANSI-compliant, DEC-compatible models feature varying levels of capability. The VP800/A is the basic model, offering VT100 and VT52 compatibility, 8K bytes of display memory, and conversational mode ▷

CHARACTERISTICS

VENDOR: Direct Incorporated, 1279 Lawrence Station Road, Sunnyvale, CA 94086. Telephone (408) 734-5504.

DATE OF ANNOUNCEMENT: VP800/A—April 1980; VP800/B—October 1980; VP800/C—July 1981; VP853—January 1981; VP825—July 1981; VP828—March 1981.

DATE OF FIRST DELIVERY: VP800/A—August 1980; VP800/B—December 1980; VP800/C—February 1982; VP853—January 1981; VP825—July 1981; VP828—April 1981.

NUMBER DELIVERED TO DATE: 2500 (all models).

SERVICED BY: Direct.

MODELS

Direct currently offers six video display terminal models, all of which are stand-alone units containing a 12-inch non-glare display and fold-up detachable keyboard. Models VP800/A, VP800/B, and VP800/C are ANSI complaint, DEC VT52 and VT100-compatible units. Models VP825 and VP828 offer Hewlett-Packard V/3000 software compatibility, and are replacements for the Hewlett-Packard Models HP2622A and HP2645A, respectively. The Model VP853 features Data General 6053 (Dasher D2) emulation.

TRANSMISSION SPECIFICATIONS

All models feature asynchronous transmission, in half- or full-duplex mode, at user-selectable transmission rates from 50 to 19,200 bits per second. A split input/output transmission rate capability is standard. Support is also provided for local echo mode. User-selectable XON/XOFF flow control is also standard. Odd, even, mark, space, or no parity is switch-selectable. All models feature an RS-232-C main port interface.

A printer port is standard on all models except the VP825.

DEVICE CONTROL

The VP800/A features conversational mode transmission, in which data is transmitted character-by-character as it is keyed. All other models feature both conversational and block mode transmission. Using block mode transmission, the operator may review and edit as many pages as the terminal memory will hold. The contents of memory may then be transmitted to the host in block form. The number of ▶

A family of 80/132-column display terminals offering DEC, Hewlett-Packard, or Data General compatibility.

All models feature a 12-inch (diagonal) display screen and a typewriter-style keyboard which can be folded into the terminal face and locked. Display memory ranges from 8K to 32K for the various models. Editing capabilities (except on the VP800/A), video attributes, and additional character sets are available on all models.

Purchase prices for the Direct terminals range from $1,590 to $2,590.

Direct VP800 Series Video Display Terminals

Table 1. Direct Terminal Model/Features Comparison

	VP800/A	VP800/B	VP800/C	VP825	VP828	VP853
Standard memory	8K	16K	16K	16K	32K	16K
32K-byte memory available	No	Yes	Yes	No	Std.	Yes
Printer port	Std.	Std.	Std.	No	Std.	Std.
Configuration method	Via status line	Via status line	Via status line	Menu-driven	Menu-driven	Via status line
Cursor line and column display	No	No	Std.	No	No	No
User-writeable status line	No	No	Std.	No	No	No
ANSI-complaint mode	Std.	Std.	Std.	No	Std.	Std.
Compatibility	DEC VT100/VT52	DEC VT100/VT52	DEC VT100/VT52	HP 2622A	HP 2645A	DG 6053 (Dasher 2)
Block mode transmission	No	Yes	Yes	Yes	Yes	Yes
Full editing capability	No	Std.	Std.	Std.	Std.	Std.
Format mode	No	No	No	Std.	Std.	No
Protected fields	No	No	Std.	Yes	Yes	No
Transmit-only fields	No	No	Std.	Yes	Yes	No
Data entry checking	No	No	Std.	No	Yes	No
Double high/wide characters	Std.	Std.	Std.	No	Std.	Std.
Special graphics characters	Std.	Std.	Std.	No	No	Std.
Host-loadable fonts	Std.	Std.	Std.	No	Std.	Std.
Download program capability	No	No	Std.	No	No	No
Program debugger	No	No	Std.	No	No	No

operation. The VP800/B has all of the features of the VP800/A, plus local editing, block mode operation, and a 16K display memory. The VP800/C adds field definition features, data entry checking, and cursor position display to the above-mentioned features. The VP800/C also features program download and debug capabilities.

The VP853 offers two modes of operation: an ANSI-compliant mode compatible with the VP800/B; and a DG53 mode, which allows the VP853 to operate as a functional equivalent to the Data General Model 6053 (Dasher D2) display terminal. The VP853 contains the same physical and operational features of the VP800/B, including editing features, block mode transmission, and a standard 16K display memory.

Addition features and capabilities of the various models can be compared using Table 1. □

blocks which may be transmitted, as well as the size of the blocks, are both user-selectable. The VP800/A features a standard display memory of 8K bytes. A standard memory of 16K bytes is found on the VP800/B, VP800/C, VP825, and VP853, which may optionally be expanded to 32K bytes (except on the VP825). The VP828 is equipped with a standard 32K memory.

Display parameters are selected via the keyboard, and stored in non-volatile RAM (which saves the parameters between power-ups). Eight user-definable function keys are available on all models; through the use of the shift key, 16 separate combinations are provided.

All models with the exception of the VP800/A provide local editing capabilities. Edit commands include insert/delete/erase page and insert/delete character. Protected and transmit-only fields are available on all models except the VP800/A, VP800/B, and VP853. Data entry checking is standard on the VP800/C. Visual attributes are available on all models and may be selected on a character-by-character or line-by-line basis. These include: blink; dual intensity; underline; reverse video; and double high/wide characters (not available on the VP825).

Four cursor control keys are standard; when used in conjunction with a function key, these keys provide scrolling and paging control through the contents of the display memory. Three scrolling rates are user-selectable: smooth scroll, slow smooth scroll, and jump scroll. The user may set a scrolling region of any size greater than two lines. Bidirectional scrolling and paging is accommodated.

The VP853 can be configured to operate in either of two modes: ANSI, or DG53. In ANSI mode, the terminal is compliant with ANSI X3.64-1979 standards. In DG53 mode, the VP853 responds to the control sequences, and takes on the video attributes, of the Data General Model 6053 terminal.

A self-test capability is standard on all models.

COMPONENTS

CRT DISPLAY: All models feature a 12-inch (diagonal) display screen. Three display formats are selectable: 24 lines by 80 characters, 24 lines by 132 characters, and 28 lines by 132 characters. A status line display is available at the base of the screen. Users can choose either P4 white or P31 green phosphor characters. Characters are formed utilizing a 7-by-12 dot matrix in 80-column mode, and a 6-by-10 or 6-by-12 dot matrix in the 132-column mode. The 96-character ASCII set is displayable. A line drawing set is standard on all models. A special graphics character set is standard on the VP800/A, VP800/B, VP800/C, and VP853. Using the terminals' font definition capability, the user can design special purpose character fonts and download them from the host to the character generator (not available on the VP825).

KEYBOARD: All models feature a detachable, typewriter-style keyboard. The keyboard is connected via a 6-foot coiled cord; it can be folded up into the terminal face and locked for security purposes. The keyboard consists of a 60-key main cluster, a 14-key numeric/function pad, 4 cursor control keys, and 8 user-definable function keys (16 functions).

PRICING

The Direct VP800 Series terminals are available for purchase only. OEM and distributor discounts are available.

	Purchase Price
VP800/A	$1,590
VP800/B	1,690
VP800/C	1,995
VP825	1,890
VP828	2,590
VP853	1,590■