

HDS
human designed systems, inc.

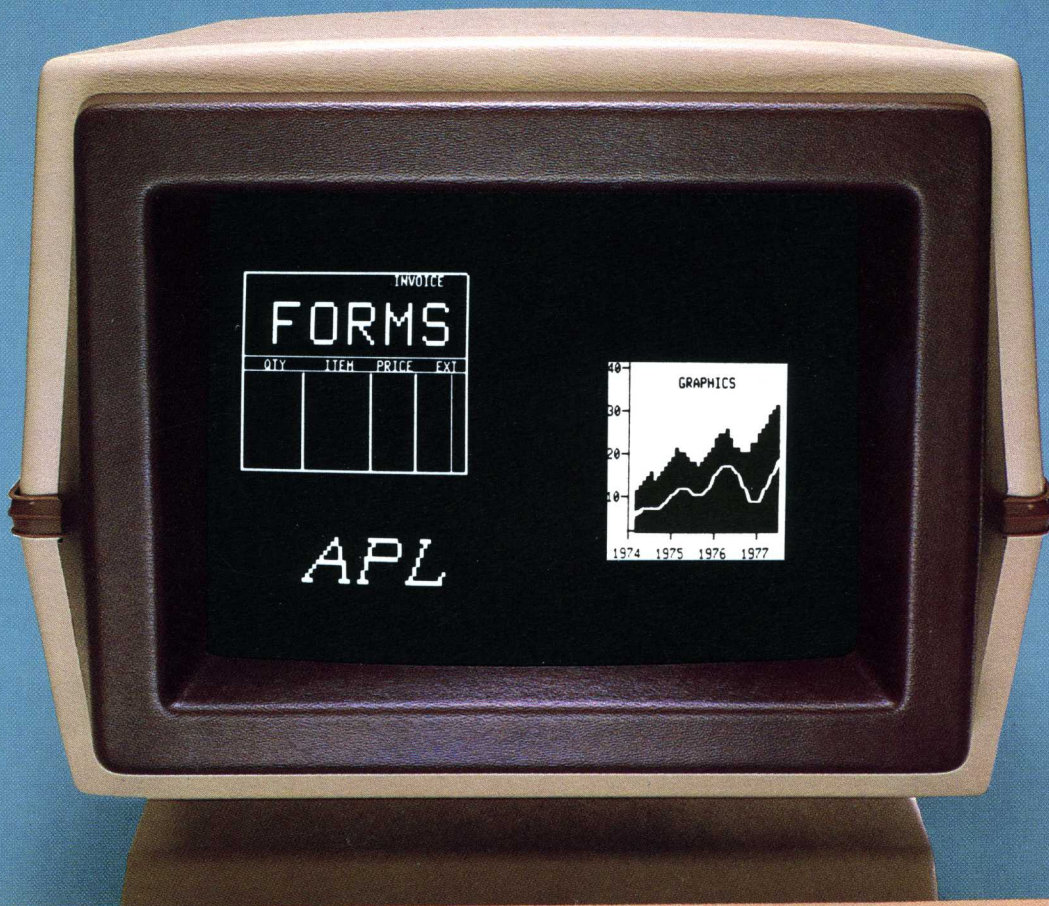
CONCEPT APL8 SERIES DISPLAY TERMINALS

The *concept APL8* — an important breakthrough in 132-column APL display terminal price/performance. From Human Designed Systems. With more display, editing and communications features than ever available to APL users...and at a low price.

The *concept APL8* starts with a low price, and enhances that with features not found in any other 132-column APL display terminal — at any price: • full/true overstrike APL • 128 upper/lower case ASCII • up to two additional character sets • four pages of scrollable memory for easy refer back (eight pages optional) • simplified form, bar chart, and graph generation •

continuous curve approximation • shading graphics • screen or slave print • switchable 80/132 column format (132 columns is provided without sacrificing high-resolution 80-column character display) • non-volatile memory for permanent configuration storage • windowing • programmable function keys • multiple user-selectable character sets • I/O capability for networking between multiple communications lines • large buffer and buffer overflow control for high-speed operation • self test • advanced text editing, data entry/retrieval and business graphics functionality • ...and many more user/human designed features providing everything needed for optimum versatility and flexibility in applications development.

- 128-character upper/lower case APL/ASCII
- APL with full, true overstrike
- Switchable 80/132 column format
- Four full pages of display memory standard; eight pages optional
- Non-volatile memory
- Windowing
- Low price
- Printer output
- Graphics
- Wide range of applications capabilities
- Attractive housing suitable for front office applications



CONCEPT APL8 SERIES DISPLAY TERMINALS

■ Concept APL8 Four-Page APL/ASCII

DISPLAY

Physical Dimensions	15¼" W x 14½" H x 16½" D (38.7 cm x 36.8 cm x 41.9 cm)
Size/Type	12" diagonal, 9" x 6" display area, P4 white, 60 Hz
Format	25 lines by 80 or 132 columns, within a 96 x 80 or 56 x 132 memory size (four pages). 25th line displays status information only
Character Generation	7 x 11 dot matrix in 10 x 12 dot array (80 columns), 5 x 9 dot matrix in 7 x 10 dot array (132 columns)
Design Features	Tilt Adjustment, recessed hooded screen
Character Attributes	APL with full true overstrike, 128 upper/lower case ASCII characters with lower case descenders, reverse video, nondestructive underline, blink*, half bright*, protection*, nondisplay (security)*. Block attribute setting for fast generation of attributes for all characters in a display area. Standard character sets include forms, curve approximation, mathematical and subscript/superscript characters. *attributes available for all APL characters except overstruck operators
Screen Attributes	White characters on black background or reverse and normal/half bright protected fields
Windows	Rectangular areas of display memory which effectively divide the display into multiple subscreens (maximum — four)
Line Drawing	Basic graphic characters allow easy form and graph generation. Horizontal/vertical line drawing functions
Status Lines	User (configuration, cursor position, current window and mode settings), Programmer (complete status detail), Alert (self-test errors and programmable status message), Tabs and Programmable Message Characters. Displayable on the bottom line or transmittable to the host computer
Cursor	Flashing underline or flashing reverse video block selectable. Controls — left, right, up, down, home. Absolute address reading and writing. Position cursor in current line or column
Tabs	Forward and backward typewriter, form automatic
Communications	Asynchronous 10, 11, or 12 bit code, seven or eight data bits, one or two stop bits, EIA RS232C, 15 baud rates (50-9600) even/odd/no parity, parity checking of input, block/character transmission, half/full duplex

KEYBOARD

Physical Dimensions	17½" W x 3" H x 8¾" D (44.4 cm x 7.6 cm x 22.2 cm)
Size/Type	91 keys with typewriter style layout — numeric, cursor control, function pads (eight function keys standard)
Design Features	Detached, matte finish, click positive touch, N-key rollover, autorepeat on all keys
Functions	Lock, bell enable/disable
Cursor Pad Control	Can be set to execute functions, transmit character sequences or both

STANDARD CONCEPT FUNCTIONS

General	All terminal functions are selectable from the keyboard and communications line(s) by control codes or escape sequences
Text Editing	Insert character in line/page mode, delete character in line/page, clear to end of line/page, insert/delete line in page
Form Editing	Insert/delete character in field, clear field/all unprotected fields/screen. Create screen allows transmission of forms created offline
Non-Volatile Memory	Permanent storage of terminal configuration and mode settings. The latent expression stored in NVM allows execution of a set of terminal commands upon power up or reset
Programmable Function Keys	Character sequences generated by all function keys are user modifiable. Memory is allocatable between display pages and function keys. Stored function keys sequences are executable from the communication lines
Message Characters	Special terminal control characters are modifiable (including the "escape" character used in command sequences)

OPERATING MODES

User/Programmer	Provides simple operation for the novice and application users while providing sophisticated capabilities to the system developer
Page/Scroll	Cursor wraparound or rolling of screen on bottom line overflow
Text/Transparent	Selects scroll mode, typewriter tabs, text editing functions or page mode, form tabs, form editing functions
Normal/Transparent	Normal handling of control codes or display of their character symbols
Auto Wraparound	Wraparound to next line or overwrite of last column on last column overflow
Buffer Overflow Control	Prevents input buffer overflow through transmission of XOFF/XON characters (user specifiable)

OPTIONS

Additional Memory	Eight pages (192 lines x 80 columns or 112 lines x 132 columns)
Video	Filtered Screen, Green Phosphor (P31), Amber Phosphor (ALA)
Shared Printer Interface	Allows multiple CRTs to share one printer (or other peripheral) for hardcopy of the display or terminal I/O
Multiple Characters Sets	Up to four character sets selectable on an individual character basis including extended graphics, foreign languages, and special designs
Additional Function Keys	Additional 11 function keys are available with eight associated with the function pad and three associated with the numeric pad
Auxiliary Communications	Two additional I/O interfaces for local peripheral support or remote connection
Communications	20 mA
Video Output	For classroom/demonstration presentations
Foreign Version	Accommodation for 220/240 VAC, 50 Hz power source



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human designed systems, inc.

3700 Market Street
Philadelphia, PA 19104
215-382-5000