

VT420 Text Terminal

The Text Terminal for the 90s

digital



What it is:

The VT420 is a low-cost, dual-session text terminal with new looks, comfort, and performance for the client-server age of the 90s.

What it offers:

The VT420 text terminal builds on the popular features of the VT320 terminal, and adds many enhancements including a three year warranty. New VT420 features include: dual-sessions; improved ergonomics; a new keyboard, off-screen memory; local macros; and communications rates to 38.4K baud.

Enhanced programmable functions provide for management of data in rectangular areas of display memory and for application control of a more secure operating environment. The VT420's backward compatibility with VT300, VT200, VT100 and VT52 text programs protects your investment in existing text applications.

How You Benefit:

New performance, ergonomic, and display features of the VT420 make it the ideal text terminal to satisfy today's more demanding needs for improved application interaction, screen management, viewing comfort, and keyboard productivity.

Fully formed fonts, higher resolution, overscan and more displayable data lines enable you to display text applications with a clarity and sophistication normally associated with more expensive desktop display devices.

These new display characteristics, combined with new commands for management of off-screen and macro memories, can enhance the performance of interactive text applications such as on-line transaction processing, spreadsheets, database inquiries, and word processing.

On the cover:

The VT420 text terminal provides an efficient display for the manipulation of rectangular regions on the screen.

Highlights

- ★ 14-inch flat-faced, anti-glare CRT screen is available in paper-white, amber, or green phosphors
- ★ 800 by 414 pixel resolution, a 70 Hz refresh rate and overscan. Displays 24, 25, 36, or 48 data lines per session
- ★ Dual-sessions capability with choice of viewing each session independently or both simultaneously
- ★ Two on-screen status lines (one per session) plus a keyboard/session indicator line
- ★ Local copy and paste within or between sessions
- ★ Low-profile, narrow LK401 keyboard
- ★ Six pages of off-screen memory
- ★ Rectangular Area Operations and Local Macros

Text Terminal for Today's Demanding Applications

In today's client-server computing environments, applications place greater demands on display devices. The VT420 terminal provides a low-cost way to get the most out of your text applications. Digital terminal servers with TD/SMP or a VAX with the VMS Session Support Utility enables you to run two simultaneous sessions through a single wire from the same or different hosts on the network.

This saves the cost of installing a second wire and the cost of a second port. Two-wire dual-sessions are also supported through the two independent host communications ports. You decide how to allocate the communications ports; use one for a printer, or both for host communications.



The VT420 text terminal features dual sessions, overscan, and multiple font choices of 24, 36 or 48 lines.

In dual-sessions, you can simultaneously view information from each session or use the "flip-screen" function for viewing one session at a time. Dual session viewing enables you to display a total of 48 data lines plus two status lines and to dynamically adjust the number of lines shown in each session on the screen.

Whether the terminal is in single session or dual-session, it's easy for you to copy-and-paste information within and between sessions. Copy and paste is a local function and can be used with existing applications. The "paste" function sends the "copied" data to the receiving application just as if it had been entered from the keyboard.

Advanced Programmable Features

Rectangular Area Operations, including horizontal and vertical scrolling, enable applications to efficiently display and manipulate rectangular segments of information on the screen and in memory. This is particularly useful for forms management and implementation of pop-up menus, dialog boxes, and help messages, improving operator/application interfaces.

Down Loadable Macro feature, enables frequently used strings of text and control sequences to be stored and executed from a 12 Kbyte memory buffer. Up to 64 macros can be stored, with a nesting of 16 levels. This permits fast screen updates, reduces network traffic, and makes your host more available for other tasks.

The VT420 terminal enhances application awareness and control of the operational environment of each terminal. Function keys including "hold," "set-up," "print," and "switch session," as well as keys used for copy/paste and paging can be controlled by a host program. Applications can clear volatile memory, reset settings, access the terminal's unique serial number, and be informed if the operator attempts to enter dual sessions, reset or repower the terminal.

Next Step In Advanced Terminal Ergonomics

The VT420 terminal leads the way to the comfort and productivity features of the 1990s with the most flexible screen display in the industry.

Three different font heights enables you to display 24, 36, or 48 lines of data on the screen at one time. Selection is easy either through local Set-up, or from a host application program. You can choose to display up to 132 columns, and you can display any of six different font sizes on a per-session basis. These features are particularly useful for the way you normally work – viewing one piece of information while developing another.

Full overscan adds viewing comfort for those who prefer to work with dark text on a light background.



The VT420 text terminal has 800 × 414 pixel resolution, a 70 Hz refresh rate and overscan.

Advanced Enclosure and Keyboard

The VT420 terminal features a compact monitor, up-front controls, and a removable tilt/swivel pedestal. The LK401 keyboard advances the ergonomic leadership started by the LK201 – the most popular terminal keyboard in the world. The LK401 keyboard is narrower, and all function keys are closer to the home position. Slightly concave to more closely conform to the natural position of the hand, the LK401 enables you to work comfortably for long periods. And the improved tactile feel of the keys helps you type faster with fewer errors. The

keyboard provides two operating modes, a "novice" mode which is similar to the LK201, and a new "extended" mode that activates extended reports, a key position mode for alternate layouts, and the ability to take advantage of the new ALT keys functions.

The VT420 terminal features a dedicated display line for keyboard status. Now you can see the status of your keyboard constantly displayed and updated through easily understood messages on the screen.

VT420 Specifications are shared unless specifically assigned to a model.

Dual Sessions

Modes Single or dual,
independent set-up characteristics.

Screen Characteristics:

Type 14" flat-surfaced, anti-glare CRT, overscan, and selectable refresh rates of 70Hz or 60Hz. Phosphors – Paper White (P192), Amber (P194), or Green (P31).
Low Magnetic Field Model – paper white only.

Resolution 800 pixels × 414 scan lines.

Display Format Full screen of 24, 36, or 48 data lines, keyboard indicator line, optional status line each session. Other formats of 25, 40, and 50 data lines depend on font size, page size and status line display selections.

Column/Rows:	80×24	132×24	80×36	132×36	80×48	132×48
Cell Size	10×16	6×16	10×10	6×10	10×8	6×8
Char. Size	8×10	5×9	8×7	5×7	8×6	5×7

Cursor Selection On/Off, Block/Underline, Blink/Steady.

Attributes Normal, reverse, underline, bold, blink, double width, double height, double height/width.

Scrolling:

Types Vertical and horizontal on full display or within defined rectangular region.

Rates Jump, Scroll 2 (9 lines per second),
Scroll 4 (18 lines per second).

Keyboard (LK401): 108 keys, tactile feel, full matte finish, sculptured key caps, volume selections for keyclick, margin bell, and warning bell.

Modes Novice and Extended

Character Location Selections Set-up choices for: greater-than/less-than (<>), shift comma and period (, and .), tilde/single quote (~ '), and Escape (ESC).

Copy/Paste Up to a full screen of 24 lines by 132 columns can be copied with-in or between sessions.

Functions keys 15 shiftable to 30, 15 host programmable, 256 bytes per session.

Local Memory:

Single Session Mode:

Page Configuration- 6 pages of 24 lines; 5 pages of 25 lines;
4 pages of 36 lines; 3 pages of 48 lines;
2 pages of 72 lines; 1 page of 144 lines.

Macro Buffer- 12,000 bytes.

Dual Session Mode: (per session)

Page configuration- 3 pages of 24 lines; 2 pages of 25 lines;
2 pages of 36 lines; 1 page of 48 lines;
1 page of 72 lines.

Macro Buffer- 6,000 bytes.

Addressable by Page(s), rectangle(s), line(s), character(s).

Rectangular Operations Copy, fill, erase, change attributes, insert/delete columns.

Character Sets	ASCII, DEC supplemental, DEC Special Graphics, ISO Latin-1, DEC technical, 7-bit NRCS*
Communications	Full-duplex asynchronous with selectable local echo and full modem control.* 7-bit or 8-bit character length, 1 or 2 stop bits
Speeds	300, 600, 1200, 2400, 4800, 9600, 19,200, and 38,400 baud (set-up selectable). Transmit and receive rates can be set separately.
Parity	Even, odd, none, even no-check (7 or 8-bit); mark, space (7-bit only), set-up selectable. Transmit and receive must be the same.
Interface	North American 2-DEC423 (MMJ) (1 as alternate printer port), included 10 ft. 25 pin adapter cable; International and Low Magnetic Field 1-DEC423 (MMJ), 1-EIA 232 25 pin, and 1-printer port (MMJ).
Printer Port	Full bi-directional communications; assignable to either session or shared between sessions; supports Digital desktop printers. May alternately be configured in set-up as second DEC423 port for 2 wire dual session.
Power cord/ Power supply	North American – attached, 120V; International and Low Magnetic field – detached, auto range 120–240V.
Standards	North American – FCC class A certification, UL, CSA, IEC. International – FCC class B, GS certification, UL, CSA, IEC, VDE-B. Low Magnetic Field – Swedish Radioprotection Institute (SSI) conformance on low frequency magnetic fields and low electrostatic fields plus all International model standards.

*VT420 International and Low Magnetic Field models only.

Physical Characteristics

	Weight	Height	Width	Depth
Monitor Box	8.5 kg 18.7 lb	31.2 cm 12.3 in	31.5 cm 12.4 in	33.0 cm 13 in
LK401 keyboard	1.4 kg 3 lb	4.5 cm 1.75 in	4.78 cm 18.8 in	19.1 cm 7 in
Environment	Operating		Storage	
Temperature	10 to 40°C (50 to 104°F)		-40 to 66°C (-40 to 151°F)	
Relative humidity	10% to 90%		50% to 95%	
Maximum wet bulb	28°C (82°F)		46°C (115°F)	
Minimum dew point	2°C (36°F)		N/A	
Maximum Altitude	24,000 meters (8000 ft)		49,000 meters (16,000 ft)	
Electrical:	US		Europe	
Voltage design range	93 to 132 Volts single phase, 3 wire		88 to 264 Volts single phase, 3 wire	
Frequency range	57 to 63 Hz		47 to 63 Hz	
Fuse rating (internal)	3 Amps			
Input power	60W maximum			
Power cord	Attached, 3-conductor grounded, 5–15 plug. Detached for INT and LMF version.			

Service and Length of Warranty.

Digital Provides Worldwide Service.

Digital is proud to be among the industry leaders in providing a three-year warranty on the VT420. This new warranty demonstrates our continued commitment to provide terminals with unmatched quality, reliability, and trouble-free operation.

Several post-warranty service packages are available from Digital's Customer Services organization.

Digital backs the VT420 terminals with a worldwide service organization of more than 35,000 professionals in nearly 600 locations in over 60 countries. Digital has a portfolio of multivendor service and support offerings specifically tailored for the growing base of desktop customers.

To learn more about the new VT420 text terminal call your Digital Sales Representative, call 1-800-DIGITAL, or contact your Digital Authorized Distributor.

Ordering Information

Order numbers shown below are a partial listing (U.S. only) and include documentation and power cord.

VT420-AA	White	VT420 Video Terminal, 120V, standard keyboard.
VT420-BA	Green	VT420 Video Terminal, 120V, standard keyboard.
VT420-CA	Amber	VT420 Video Terminal, 120V, standard keyboard.
VT420-DA	White	VT420 Video Terminal, 120V, WPS keyboard.
VT420-EA	Green	VT420 Video Terminal, 120V, WPS keyboard.
VT420-FA	Amber	VT420 Video Terminal, 120V, WPS keyboard.
VT420-GA	White	International VT420, 120-240V, standard keyboard.
VT420-HA	Green	International VT420, 120-240V, standard keyboard.
VT420-JA	Amber	International VT420, 120-240V, standard keyboard.
VT420-KA	White	International VT420, 120-240V, WPS keyboard.
VT420-LA	Green	International VT420, 120-240V, WPS keyboard.
VT420-MA	Amber	International VT420, 120-240V, WPS keyboard.
VT420-SA	White	Low Magnetic Field VT420, 120-240V, standard keyboard.
VT420-TA	White	Low Magnetic Field VT420, 120-240V, WPS keyboard.

Options and Accessories

EK-VT420-RM	VT420 Programmers Reference Guide
QL-VE3A*	Session Support Utility (SSU)
H8673-AA	20 mA active host mate-n-lock to EIA-423 DECconnect MMJ passive converter
H8673-AB	20 mA active host RJ11 (6 pin) to EIA-423 DECconnect MMJ passive converter
VT4XX-GF (qty 1)	VT420 screen filter with static protection
VT4XX-XG (qty 5)	
VT4XX-XF (qty 75)	

*Dependent on CPU type.

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