All About Alphanumeric Display Terminals

The first 'dumb' terminal featuring limited editing capabilities, was introduced in 1972 by Lear Siegler, Inc./Data Products Division. This terminal was used basically for data entry applications. Since that time, the video display terminal (VDT, or CRT, as it is commonly referred to) has grown into the principal interface between people and computers. As computers continue to permeate every aspect of our society, more and more people are being exposed to them not only as a business tool, but as a useful household and educational commodity. Originally invented as a 'glass teletype,' the display terminal has developed to a point where it is a primary component in the vast majority of modern computer applications, including data entry, inquiry/response, telemarketing, computer graphics, word processing/text editing, and many others. For the purpose of this report, we will focus on alphanumeric display terminals designed for general-purpose business applications.

Enhancements in the design and functionality of the cathode-ray tube (CRT) have contributed to the growth of the market. However, one of the major controlling factors in terms of how it affects the end user, is price. Originally, dumb terminals were the least expensive, while smart terminals and user-programmable terminals were respectively, more expensive; price was proportionate to capability. While this is still true, advances in technology have caused the lines of definition between what is dumb and what is smart to become more indistinct. These technological advances are responsible for the drastic drop in prices over the past ten years and the virtual extinction of the dumb terminal. When considering that a little more than five years ago, only the most basic dumb terminals carried a price tag below $1,000, and today, the price has fallen below $400, it is obvious that the technological improvements in the display terminal market have had a significant impact upon the price.

The Falco 5500 is a high-end ASCII terminal, featuring a high resolution screen and multi-host windowing.

Dispite the declining prices of alphanumeric display terminals, this market remains a very viable one. Terminal vendors continue to come and go, but the major players are successfully maintaining respectable market shares. This report will focus on alphanumeric display terminals designed for general-purpose business applications. It includes a brief historical summary of the market; current market trends; developments in ergonomics; and a look at the industry's major segments. Also included are comparison columns detailing the specifications of 361 display terminal models offered by 83 vendors.

Another factor in the decline in prices is terminal emulation. Although IBM continues to dominate the market with its popular 3270 Information Display System, 3270-compatible terminals and peripherals are plentiful in today's market. This market saturation of full-featured IBM imitators, at lower than IBM cost, has caused Big Blue to adjust their prices downward to maintain the upper hand in their own market.

Other popular compatible markets are the Digital Equipment Corporation VT100 and VT200 markets. As with IBM, Digital has realized a sizable following into these areas. Many vendors are raking in profits by marketing lesser priced clones of the VT100 and VT200 Video Display Family terminals.

GENERAL CATEGORIES

All display terminals discussed in this report have three features in common: 1) each has a keyboard that can generate and a monitor that can display a full alphanumeric character/code set; 2) each has the capability to send and receive data via communication lines to a remote host computer; and 3) each is marketed for general-purpose usage in the United States and Canada and is identified as a distinct product to end users.

Three general categories of terminals have been determined: dumb, smart, and user-programmable; the definitions are listed below.

Dumb terminals offer a limited number of functions; most feature teletype compatibility.

Smart terminals offer extended functions, such as editing and formatted data entry. In some cases, the user can tailor the terminal to fit his own application via a limited degree of programming, such as format creation and parameter definition.

User-programmable terminals *(or intelligent)* terminals feature software support. The vendor typically provides an ▷

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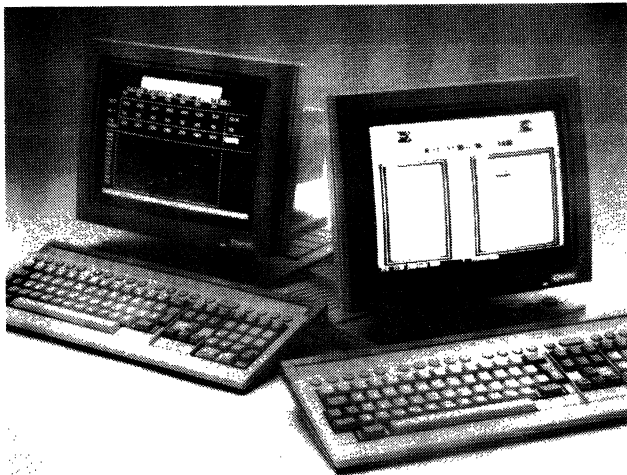
ITT Qumes's QVT 203 PLUS provides full emulation of the Digital VT220, including the keyboard, but has been enhanced with additional system features as well as user comfort and desktop relating features. Among these additional features is a reduced length, high response capacitive keyboard which can act as both a VT220 and a VT131.

▷ operating system, an assembler- or compiler-driven programming language, subroutines, I/O utilities, one or more protocol emulators, and one or two application programs, such as data entry and text editing. (The emergence of the microcomputer has limited this class of terminal.)

These categories have been squeezed from both sides, however. At the high end, user-programmable terminals have all but given way to microcomputers; very few companies continue to manufacture these high-priced terminals. At the low end, advances in technology and plunging prices have led to the extinction of the dumb terminal as such. Today, practically all display terminals on the market fall into the smart terminal category.

MICROCOMPUTERS VS. TERMINALS

The acceptance of the microcomputer by corporations has somewhat jeopardized the display terminal market. This market has also seen a steady decline of prices, which is making the microcomputer a more attractive buy. A number of firms are using them as multipurpose workstations that duplicate some of the functions traditionally performed by terminals. As microcomputer-to-mainframe links improve, more and more microcomputers will be able to perform terminal tasks in addition to microcomputing tasks. The multiuser microcomputer market provides another arena into which the display terminal vendor can sell. However, with an estimated 10 million display terminals currently installed throughout the United States, this industry will remain an important part of the office environment for the forseeable future.

MICROPROCESSOR CONTROL

Since the introduction of the display terminal in 1965, the single most important development in the industry has been the addition of the microprocessor. In 1975, only 10 percent of the terminals installed offered this feature; now all terminals currently manufactured are microprocessor controlled. At one point, the Intel 8088 was considered the industry standard. However, the 80286 has surpassed it in popularity and is the most widely used microprocessor for terminals today. The 80286 will soon give way to the newer 80386.

Microprocessor-based programs (firmware) reside in ROM or PROM memory. ROM-resident programs, which are inexpensive when reproduced in large quantities, control those features which are permanent and unchangeable; while PROM-resident programs are typically produced in smaller quantities and implement customized or modifiable features. Either type can be replaced by simply removing the old chip and putting in a new one. This flexibility is highly beneficial to the manufacturer, since older equipment can be updated and nonstandard customer specifications can be fulfilled without costly hardware changes. Theoretically, program interchangeability might also benefit the user, but in practice it is doubtful that the requirements of a particular user will change often enough to make it a great advantage. The fact that PROM replacement generally must be done at the factory or by a field service technician precludes frequent PROM replacement.

In addition to controlling basic terminal functions, the microprocessor firmware can provide protocol emulation, define the character/code sets to be generated by the keyboard and displayed on the screen, implement special features, set control parameters, etc. Firmware specifications are generally determined at the time of order, and once the firmware is in place, execution is transparent to the user. Some vendors have predetermined programs from which to choose; a few permit users to submit their own firmware specifications.

DISPLAY MEDIA

The most widely accepted display medium for terminals today is the cathode ray tube (CRT). This device is similar to a television picture tube and is used to display textual and graphic information. Its flexibility, high capacity of characters, and relatively low cost are the primary factors contributing to its popularity.

The CRT has the capability to display alphabetic and numeric characters in an endless number of formats. Employing this medium, such visual attributes as blinking, underlining, reverse video, and varying levels of brightness can be achieved. Some CRT terminals can display double-size characters. A growing number of CRT vendors are offering graphics character sets for creating forms, report formats, graphs, and pie charts on screen. Some CRTs also permit the creation of business graphics–for example, bar, column, and pie charts reflecting sales, income and expense, inventory levels, etc. Interactive graphics or engineering graphics, on the other hand, is a completely different discipline which requires a high resolution graphics terminal. Graphics terminals can also display alphanumeric characters, but they are considerably more expensive. ▷

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▷ In addition to the CRT, other mediums include LEDs (light-emitting diodes), which are popular in calculators and point-of-sale (POS) terminals, and gas-discharge displays. These mediums generally produce higher-resolution displays than CRTs, but their high cost has prevented them from overtaking the CRT in popularity.

ERGONOMICS

Only within recent years has the design of a display terminal been considered in terms of its affects on the operator. This interest in *ergonomics,* defined as the interactions between workers and their environment, began in Europe, where powerful unions representing clerical workers have implemented guidelines as to what types of display terminals their members will use. Although the United States has not implemented such guidelines, vendors, realizing the marketability of enhancing their products with these ergonomic features, have voluntarily done so.

Ergonomic improvements have been concentrated in the two components with which the operator has the most interaction; the display screen and the keyboard. Where once we saw the majority of screens and keyboards attached as one unit, we now find that arrangement to be the exception rather than the norm.

Keyboards are now detached or detachable, connecting to the display via a coiled cord that allows the operator to position it for optimum comfort. Keyboard color and the arrangement of keys have also been affected by improved ergonomics. These changes make it simpler to identify specific sets of keys and simpler to train personnel already familiar with the typewriter-style key arrangement. In addi-

Paradyne's PDX Messenger Series is a flexible family of multi-function workstations which can be configured to suit a variety of business communications needs.

tion, some vendors have included palm rests for operator comfort, and sculptured key caps have replaced flat caps. Studies have shown that a slope of 5 to 15 degrees is the most comfortable profile angle for keyboard operators, while thickness, or distance from the base of the keyboard to the home row of keys, generally should not exceed 30 mm.

When making CRTs more 'user friendly', manufacturers placed considerable emphasis on the display screen as eye strain and fatigue were a major point of dissatisfaction. In the past, when the display and keyboard were attached, there was little or no chance of positioning the screen to avoid glare and making it easier on the eyes. Since undertaking the task of improving terminal ergonomics, most manufacturers have incorporated tilt and swivel mechanisms in their units. This allows the display screen to be raised or lowered to allieviate strain on the eye muscles, the neck and back. The swivel capability offers flexibility in operator position.

MAJOR DISPLAY MARKETS

The alphanumeric display terminal market generally is acknowledged to contain two major segments: the ASCII (asynchronous) terminal market, and the IBM 3270 (synchronous) terminal market. Both segments continue to enjoy healthy growth, particularly the ASCII market. And, as mentioned previously, low prices and increased price/performance have made display terminals more attractive than ever to potential users, and continue to play a major role in the direction of each of these segments.

IBM's Best-seller, the 3270

The IBM 3270 has strongly impacted the alphanumeric display terminal market since deliveries began late in 1971. The first generation of devices, which were discontinued as IBM products in late 1982, included the 3271/3272 control units, 3275 display station, 3277 display, and 3284/3286/3288 printers. In 1977, the product line was radically overhauled, resulting in the announcement of a second generation of components (the 3274 control unit, 3276 control/display, 3278 display, and 3287/3289 printers) that offered increased capabilities at prices much lower than comparable older models. Along with that announcement came major price reductions on the older equipment. In late 1979, color displays and printers were added to the family.

In March 1983, IBM made some long-awaited changes and enhancements to the 3270 product line. Unveiled were the 3178 Display Station, a smaller and less expensive version of the popular 3278 Model 2 display; new versions of the 3274 Control Unit, offering improved price/performance; the 3290 Information Panel, a gas plasma display; the 3299 Terminal Multiplexer, a coaxial cable eliminator; price reductions of approximately 10 percent on older existing 3270 models; purchase discounts of 40 percent on the 3178 for quantities of 3,000 or more, with the conversion of leased 3278s applying to that quantity; and an option permitting the attachment of the IBM Personal Computer ▷

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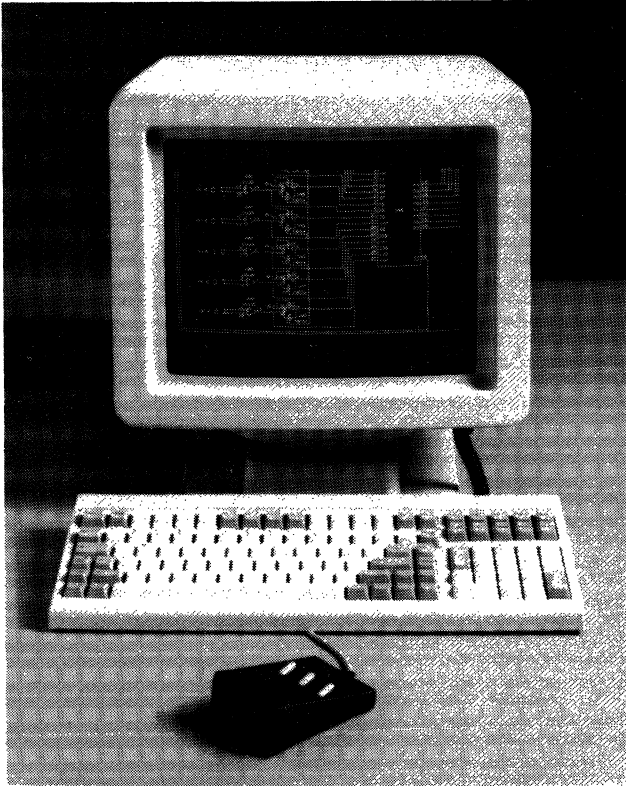
Ann Arbor Terminals' GXL graphics display terminal provides ANSI standard commands with Tektronix 4010/4014 compatible graphics. The GXL supports all popular graphics packages, including PLOT-10, DISSPLA, TELL-A-GRAPH, SAS/GRAPH, and others.

▷ to the 3278 Display Station. These announcements were followed in October with the introduction of the 3270 Personal Computer, a version of the firm's PC for use as part of a 3270 cluster. The 3179 color display and 3180 display, both compact terminals along the same line as the 3178, were unveiled in March 1984.

These changes were made by IBM to protect their large (and lucrative) 3270 installed base. This installed base numbers well over 1½ million units. The independent 3270-compatible terminal vendors, through lower prices or improved price/performance, were seriously eroding IBM's share of the market. These independents include vendors such as ITT Courier, Telex, AT&T, Lee Data, Memorex, and several others. In order to remain competitive, these vendors were forced to reply to the IBM announcements with new products and/or price reductions of their own. Some could not, and a small shakeout occurred, with Raytheon Data Systems (once IBM's number-one competitor in this market) and MDS Trivex exiting the market.

By adding the 3270-PC, as well as Personal Computer attachability, to the 3270 system, IBM has addressed a threat which is as much internal as it is competitive. The overwhelming acceptance and popularity of the IBM Personal Computer poses a real threat to the entire display terminal industry. As personal computing becomes the

rule, and not the exception, in most major corporations, IBM is moving to protect its huge 3270 installed base by incorporating personal computing into the 3270 system. Most of the independents now offer some type of personal computing with their product lines, either via their own equipment or through IBM Personal Computer attachability. In the near future, some type of personal computing capability is likely to become requisite for competing in this market.

With the increased pressure from IBM, it is now more important than ever for the independent vendors to offer a complete line of 3270-compatible products. Today's successful independents must couple a full range of products with lower prices, improved price/performance, and added value, in order to create an opportunity to penetrate an IBM shop.

To reap the benefits of both worlds, some vendors have introduced systems that provide synchronous and asynchronous communications. Users can simultaneously gain access to more than one host computer, transfer data among them, and view operations through multi-tacking display terminals. This is particularly significant for businesses using different systems in various locations. The AT&T 6500 Multi-function Communications System and the IBM 3174 Subsystem Control Unit are among the few vendors offering this versitility.

Table 1 provides a summary of the major 3270-compatible vendors and their products. This table does not include those products that require a protocol converter for 3270 emulation.

The ASCII Terminal Market

The ASCII display terminal market is the largest segment of the two major display markets, with regard to number of vendors, number of units marketed, and quantity sold. This market originated as the Teletype replacement market, with units intended to replace the highly popular Teletype ASR 33/35 terminals. Although today not many of the ASCII terminals purchased are actually replacing the older Teletype units, the ASCII terminal market is still often referred to as the teletype-compatible market.

Manufacturers of ASCII terminals generally aim their products at educational and commercial users who require large numbers of low-priced terminals for applications such as order entry and time-sharing.

As was mentioned earlier in this report, price is a key factor for success in this market. The continuing price war involving the low-end entries in the ASCII terminal market has made the recent activity in this segment even greater than in the past. Initially, only the truly "dumb" terminals (like the original dumb unit, the Lear Siegler ADM 3) were available for less than $1,000. Now, features such as block mode transmission and editing capabilities are available at below traditional dumb terminal prices. In addition to price cutting, vendors are attempting to make their offer- ▷

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TABLE 1. IBM 3270 COMPATIBILITY

Vendor	System/Model	IBM Controllers Emulated	IBM Displays Emulated	Personal Computing Capability
AT&T	6500	—	3178/3179	Yes
AT&T	E4540	3274/3276	3278/3178/3279	No
Beehive	ATL-3270/ATL-3270MS	3276	3275/3276	No
Braegen	8500 (ELAN)	3274	3278/3180	Yes
Carterfone	7276	3276	3276	No
Computer Communications	Group 8000	3274	3276/3278	No
Comterm	5270/6270	3274	3278/3178	No
Control Concepts	EM-3275/3276/ CC-3275/3278	—	3275/3276/3278	No
Datastream	8178/8180	3274/3276	3178/3180	No
Davox	1911/2911	3274	3278	Yes
Harris	Challenger	3274	3178/3180/3179	Yes
Icot	700/701	—	3278	No
Informer	370	3276	3276/3278	No
CIE Systems	CIE-7800/7850	—	3178/3278	Yes
ITT Courier	9000	3274/3276	3178/3278/3179/3279	Yes
Lee Data	Series 300/400	3274	3178/3278/3279/3180	Yes
Memorex	207X	3274/3276	3178/3278/3279/3180	Yes
NCR	7950	3274	3278	No
Nixdorf	8270	3274	3278	No
Paradyne	PDS 270	—	3276/3278	Yes
PHAZE Information Machines	P3278/P3279/P9020	—	3278/3178/3279/3179	Yes
Term-Tronics	3270X	—	3275/3276/3278	No
Term-Tronics	Miracle 178/179	—	3178/3278/3179	No
Telex	TC 270	3274/3276	3276/3178/3278/3179/3279/3180	Yes

ings more attractive to potential buyers by adding enhanced features such as business graphics, split-screen or windowing capabilities, and a variety of visual attributes. ASCII terminal vendors are also paying a lot of attention to ergonomics, incorporating features such as tilt/swivel screens and low-profile keyboards into their products.

Leaders in the ASCII field generally provide a full range of terminal models ranging from low-end units to editing models. The current leaders include Wyse Technology, TeleVideo Systems, Applied Digital Data Systems (ADDS), Esprit Systems, and ITT Qume. An active but somewhat separate subsection of the ASCII terminal market consists of the Digital Equipment Corporation VT100, its successor, the VT220, and those terminals that offer Digital emulation. A large number of vendors are involved in the Digital Equipment Corporation emulation market, including those general-purpose terminal vendors mentioned above; in fact, most major ASCII terminal manufacturers provide at least one Digital emulator in their product line.

As a by-product of Digital emulation, vendors are now providing ANSI X3.64 code compatibility on their terminals. The American National Standards Institute (ANSI) first published the X3.64 standard for two-dimensional data devices in 1977. The goal of the standard was to standardize control codes for all terminals. The Digital VT100 was the first display terminal to conform to the ANSI standard, and the VT220 also conforms. In order to provide true Digital emulation, the makers of Digital emulators also are required to provide ANSI X3.64 code compatibility on their products.

In addition to Digital, most of the major mainframe and minicomputer vendors offer terminal product lines for use with their computer systems. Hewlett-Packard claims a large installed base of display terminals, as do Burroughs, Data General, and Sperry.

DISPLAY TERMINAL CHARACTERISTICS

The accompanying comparison charts summarize the characteristics of 361 commercially available alphanumeric display terminals from 83 vendors. Nearly all of the information was supplied by the manufacturers during December 1986. Their cooperation is acknowledged and greatly appreciated.

Datapro sent repeated requests for information to over 100 companies known or believed to be in the display terminal business. The usable responses summarized in our charts provide a comprehensive picture of the commercial display terminals that are currently available in the United States and Canada. *The absence of any specific company from our charts means that the company either failed to respond to our repeated information requests or was unknown to us.*

The chart entries and their significance are explained in the following paragraphs.

TERMINAL DESCRIPTION

Display terminals are available in one of two basic terminal configurations: *stand-alone* and *cluster*. Stand-alone units are typically those that contain all components that support the operation of the terminal including display, keyboard, interface, and power supply within a single cabinet. Auxil-

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iary units such as printers, cassette tape drives, etc., are usually external devices. Sometimes a stand-alone unit includes separate cabinets for terminal control and keyboard/display sections, and it may even include one or two separate displays. A cluster configuration typically includes a terminal control unit and a number of individual cable-connected keyboard/display units that can be located several thousand feet from the controller. In some cases, the vendor provides a multiplexer that accommodates a cluster of stand-alone terminals. The size of a cluster arrangement is defined by the *maximum number of displays per controller*.

Terminals that are designed to be hand-held or to be hand-carried are noted in the entry *transportability*.

Some terminals are designed as direct replacements for other terminals. In the alphanumeric display terminal market, replacement terminals fall into two principal categories: those designed to replace an IBM family terminal are indicated as having *IBM compatibility*; and those designed to replace a terminal in the ASCII/Teletype market are indicated as having *teletype compatibility*.

Some vendors provide *other compatibility*, and can replace terminals such as those produced by Burroughs, Digital Equipment, Honeywell, and Unisis (formerly Burroughs and Sperry).

Either of two types of compatibility may be offered: transmission compatibility or "plug-to-plug" compatibility. Transmission compatibility requirements include identical protocol, code and unit code structure, timing, asynchronous or synchronous operation, and transmission speed. Some vendors even provide identical cables, which is a cost-effective consideration in a local cluster environment. Most vendors with transmission-compatible units offer
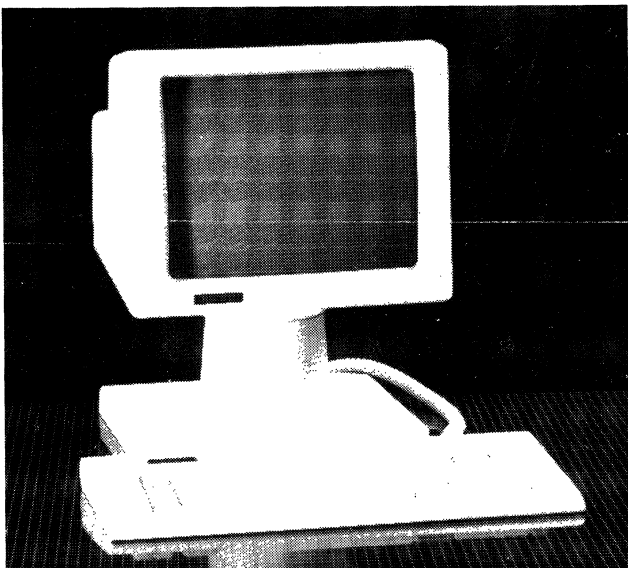
The Xpoint Remote 91 comes with the protocol converter of your choice and offers System 34/36/38, 5251-11, or 5291 keyboard compatibility.

additional features and functions that the original vendor's equipment does not have, implemented via minor changes in host software. Units with true plug-to-plug compatibility not only have identical transmission parameters, but also identical features and functions; no alteration to host software is necessary, but no enhancements beyond the original vendor's equipment are available.

DISPLAY PARAMETERS

Information displayed on the screen of a CRT is generally arranged according to an orderly format consisting of a maximum number of printed lines per screen and characters per line. The electronic circuitry that produces the display image is designed to a specified set of parameters that define the *display capacity* (i.e., the maximum number of display positions) and the *screen arrangement* (i.e., the maximum number of displayable lines and displayable characters per line). The most common display capacity is 1920 characters arranged in 24 lines of 80 characters. Many vendors offer 132-character display lines, which can eliminate the need to revise or patch software designed for standard 132-column printers or to maintain dual sets of programs for 80-column and 132-column output.

In most terminals, the number of characters that can be stored by the terminal's display memory equals the maximum screen capacity. In some terminals, however, storage is provided for more characters than can be displayed on the screen at one time. This additional data may be stored character-by-character, by the line, or by the "page" (a full screen of data). *Memory capacity* defines the total number of characters, lines, and pages that can be stored in the terminal's display memory.

Information is displayed in a rectangular area, slightly smaller than the total surface of the display screen. The factors that determine the required size of the *screen area* are the display arrangement and the size of the displayable characters. For example, the typical 1920-character display utilizes a 12- or 15-inch (diagonal) screen area.

Ergonomic factors are becoming increasingly important as terminal features. One such feature gaining in popularity is a *tilt and/or swivel screen*. This feature provides for the mounting of the display monitor onto a separate desktop base or pedestal, and allows the operator to twist the screen vertically ("tilt") and/or horizontally ("swivel") to the most advantageous position for viewing.

The set of *total displayable symbols* and the method of *symbol formation* are functions of the character generator, which accepts coded characters (typically ASCII or EBCDIC) from the computer and keyboard and converts them to a number of dots or strokes so that the form of the symbol or image can be displayed. In CRTs, characters are formed almost exclusively by the dot matrix technique. Each character is formed within a matrix of dots, and only those dots required to form the specific character are intensified. For example, a dot matrix that contains 35 dots is typically arranged 7 dots high by 5 dots wide.

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▷ Characters can be made clearer by increasing the number of dots within the matrix. The stroke technique forms characters by drawing short straight lines between specified points. *Character phosphor* refers to the physical coating of phosphorous on the back side of the screen which, when illuminated, creates the displayed characters. The type of phosphor used defines the color of the displayed character, as well as the persistence of the phosphor (a long-persistence phosphor is less likely to cause image flicker problems than a short-persistence phosphor; however, the image of a long-persistence phosphor is more likely to smear when lines are scrolled). Among the more common phosphors available are P4 (white), and P31 or P39 (green). Amber and yellow-green phosphors are also available on some terminals.

Display arrangement, display medium, character phosphor, and symbol formation all have a great impact on display clarity. Several units should be tested to decide which is easiest on the operator's eyes.

Attention can be drawn to vital information and different types of significant data can be visually separated by the use of the following display features:

- *Color*—characters or fields can be separated by color, which also can be used to identify conditions or types of data. IBM's color display, the 3279, is currently emulated by many of the independent 3270-compatible vendors.

- *Graphics*—bar charts, pie charts, and graphs may be used to present certain types of information. In most cases, an affirmative answer in this category indicates the presence of line drawing or special graphics character sets. It generally does *not* indicate the presence of highly sophisticated graphics capabilities found on graphics-dedicated terminals.

- *Underline*—highlights significant information by underlining.

- *Blink*—highlights significant information by causing it to blink off and on.

- *Blank (security)*—sensitive information is transmitted, but not shown on the screen.

- *Bold*—highlights significant information by displaying it at a different brightness level.

- *Reverse*—highlights significant information by displaying a negative image of it, e.g., when normal data is displayed in white on a dark background, the highlighted character or field is displayed in dark on a white background.

- *Double size*—highlights significant information by displaying it in characters which are of larger size than normal. Double height, double width, and/or double height/width characters may be supported.

Some terminals offer several of these display features, which can be combined to produce even more effective results. The features are programmable (usually via the keyboard), and can be used on a character-by-character basis, or in a designated field.

Some applications require viewing more data than can be displayed at one time. The following features satisfy this need:

- *Scroll*—this feature moves all displayed lines of data up or down by one line as a new line is added and an existing one removed. In some cases, the first line is linked with the last so that the data is rolled but not lost. In others, data is lost as it rolls off the screen. This feature permits the user to scan through a volume of data to locate key information.

Many vendors now feature smooth scrolling, in which data is rolled or scrolled smoothly up or down (much the same as the credits at the end of a movie).

- *Paging*—this feature defines and stores two or more discrete frames or pages of data and displays any selected page.

Although scroll and paging features can be software implemented in the host computer, the comparison chart entry applies only to those terminals that implement the feature via hardware or firmware. Many terminals provide the scroll feature, but relatively few provide paging. Some provide both features.

The cursor marks the position on the screen where the next character will be read or written from memory. Cursor controls enable the operator to maneuver the cursor on the screen and facilitate the input and output of data. Different manufacturers use a variety of symbols to indicate the cursor position on the screen, for example, an underline, a reverse video block, or a blinking character. Some terminals allow the operator to choose among several types of cursor symbols; the most typical feature being *selectable blinking cursor*. Some terminals also have *addressable/ readable cursors* that enable the position of the cursor to be written or read by the host computer under program control.

Most businesses use printed forms for daily activities such as billing, ordering, payroll, etc. Some CRT terminals can duplicate the printed form on the face of the screen, and data can be keyed into the blank spaces just as the typist enters data into a printed form. This "fill-in-the-blanks" approach to data entry requires a *protected format* capability. Display terminals that incorporate this feature treat the fixed format differently than they treat keyed data. Field identifiers such as "name" or "salesperson number" are protected from inadvertent key entry, and data entry is confined to the variable fields (blank spaces) following the field identifiers.

After having completed entry into the fixed format, the operator transmits the data to the central computer. A ▷

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▷ feature called *partial screen transmit* promotes line economies by transmitting only the keyed data; the fixed format remains displayed and the "blanks" are erased for the next entry. This feature is also useful for transmitting only a portion of the displayed data such as a field, line, or block.

A few vendors now offer a *split-screen* and/or *"windows"* feature on their terminals, in which the display screen can be divided or partitioned into a number of separate workspaces. Data in these workspaces can be manipulated (e.g., scrolled, stored, or transmitted) independently of the rest of the screen. *Tabulation* capabilities allow some terminals to automatically move the cursor to the beginning of the next line, or to the beginning of the next variable field within a line of formatted data immediately following the entry of the character that completes the end of the current line or field. The tab key needs to be used only when the current line/field is to remain partially filled.

Editing features in a display terminal can consist of any combination of the functions listed below, although the best terminal for editing purposes would include all of them. Each function is performed with respect to the current position of the cursor. The desirable editing functions are:

- *Character insert*—the capability to insert a character into an existing line of displayed text; the remaining characters shift to the right or "spread" to accommodate the added character. The spreading capability may terminate at the last character position of the line or at the last displayable position on the screen. Data is lost when it is spread beyond the termination point.

- *Character delete*—the capability to delete a character from an existing line of displayed text; the remaining text closes up when the character is deleted.

- *Line insert*—the capability to insert a line of text into existing text; the text spreads to accommodate the added line.

- *Line delete*—the capability to delete a line of text from existing text; the remaining text closes up when the line is deleted.

- *Erase*—the capability to erase a character, line of text, message, field, or the complete screen. Most terminals include character erase and some form of display erase, which may erase the entire contents of the display, just that portion following the cursor location, or a combination of both functions. Line erase is optional in many terminals.

KEYBOARD PARAMETERS

Keyboard *style* defines the general arrangement of keys; e.g., typewriter- or data entry (keypunch)-style. Data entry keyboards have a numeric keypad embedded in the alphabetic part of the keyboard which is accessed via numeric
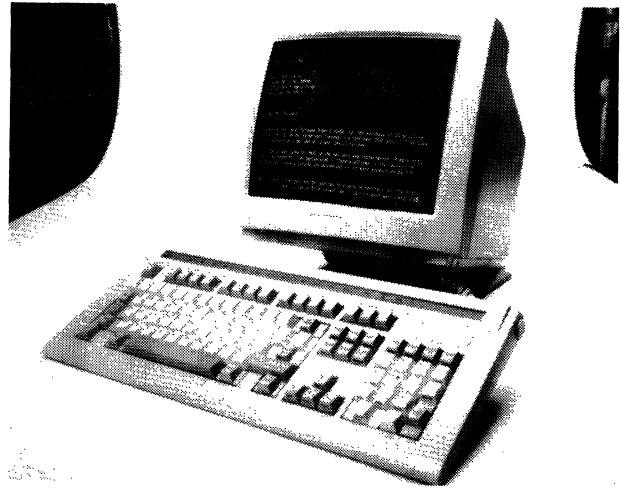
Tatung's Model TUT 7261, is the company's first terminal with ANSI, ASCII, and IBM 3161 emulations.

shift. The *character/code set* refers to the set of symbols that appear on the keytops and, in many cases, to the actual character codes generated for each key depression, such as ASCII, EBCDIC, APL, etc. Some terminals are available with more than one keyboard style to satisfy particular user needs.

Keyboards that can either fit flush against the display or be located some distance away via cable connection are referred to as *detachable* keyboards. This feature provides increased configuration flexibility and operator convenience.

Some terminals are available with *program function keys*. These are special keys whose character codes are interpreted by the user's program. A function key is used to reduce the number of required input keystrokes to save time and reduce the number of input errors. Depressing one key could instruct the system to "sell one seat" or "call Chart A," for example.

A *numeric keypad* is a special keyboard feature that includes a set or block of 10 numeric keys, usually located to the right of the main keygroup. These numeric keys are arranged in an adding-machine format and are particularly useful for applications that require a high volume of numeric entries or arithmetic calculations.

ANCILLARY DEVICES

External I/O devices can add considerable flexibility to the applications possibilities for display terminals. Many vendors provide *serial printers* or *line printers* for use with their terminal families. In the case of IBM 3270-type terminals, these devices usually connect to the control unit, not to the display terminal itself.

Composite video output allows the terminal to drive an auxiliary monitor. This capability is useful in applications such as computer-aided instruction, where there is a need to display the screen image to a group of people. ▷

All About Alphanumeric Display Terminals

> *Other devices* supplied and supported by the terminal vendor, such as diskette drives, cassette tape drives, light pens, magnetic stripe (ID card) readers, bar code readers, etc. are also listed. Even if they supply no auxiliary devices themselves, most vendors supply a *port* through which another vendor's printer or other device may be attached to the display.

TRANSMISSION PARAMETERS

Nearly every display terminal contains a communications interface that enables communications between the terminal and the central computer site. *Mode* and *technique* define the operating mode and the method in which data is transmitted. There are two operating modes: half-duplex (transmission in both directions, but not simultaneously), and full-duplex (simultaneous transmission in both directions).

Data is transmitted synchronously or asynchronously. Asynchronous transmission is characterized by the transmission of data in irregular spurts, where the duration of time can vary between successive transmitted characters; the transmission from an unbuffered teletypewriter is a good example. Synchronous transmission implies the transmission of data in a steady stream. The time interval between successive characters is always precisely the same. The communications interface either provides clocking or accepts external clocking signals from the data set.

Communications protocol refers to the type of line discipline (control code sequence and control characters) that the terminal employs. The three most commonly used protocols are ASCII, IBM's Binary Synchronous Communications (BSC) technique, and IBM's Synchronous Data Link Control (SDLC) line discipline. Other large mainframe vendors such as Burroughs, Honeywell, and Digital Equipment Corporation have produced their own communications protocols. Many display terminals now also conform to the ANSI X3.64 standard for control codes; if ANSI standard conformity exists, it will be indicated here.

The transmission *code* refers to the bit pattern of the transmitted characters. Two codes are prominent: EBCDIC and ASCII. The latter has been accepted as an industry and government standard, and is now the most commonly used code by display terminals. EBCDIC is most commonly used with IBM equipment and its replacements.

The CRT terminal is a high-speed device that is usually capable of transmitting and receiving several thousand characters per second; however, it must run at a speed that is compatible with the communications system in which it is used. Most terminals are used on voice-grade facilities, which limit the transmission *speed* to a practical maximum of 4800 bits per second over the dial network and 9600 bits per second over leased or private lines.

Message *format* refers to the way data is transmitted (e.g., by block, by line, or by character). Terminals that are designed to be transmission-compatible with a teletype unit transmit a character for each key depression. Buffered terminals transmit data in multicharacter blocks. The line or block mode permits data to be composed and edited prior to each transmission and generally permits more efficient utilization of the communications facility. Some terminals offer manual selection between the modes.

Multipoint operation characterizes terminals that are capable of operating in a multiple-terminals-per-line environment such as that employed by the IBM 3270 display terminals. Basic to implementing this capability is the ability of a terminal to distinguish a control message intended for it alone. Polling invites the terminals to send data. Addressing informs the terminal that a message from the central computer is coming, so that it will be conditioned to receive. Central control of the message traffic is maintained by the central computer.

Display terminals usually have a *terminal interface* that meets the standards of the EIA RS-232-C specification or the 20 ma current loop, and connects to an external modem or acoustic telephone coupler. Other interface types include RS-422, RS-423, and MIL-188 (military). IBM 3270 and 3270-compatible terminals generally connect directly to a cluster controller via coaxial cable.

Some terminals contain an *integral modem* that can be connected directly to a communications line. In some cases, the vendor provides an integral *acoustic telephone coupler*, so that the terminal can be connected to a conventional telephone handset.

PRICING AND AVAILABILITY

Terminal pricing is provided for unit quantities (one terminal) unless otherwise specified. *Purchase prices* are shown for the complete terminal (including keyboard, display, and ▷

The compact Hewlett-Packard HP 2392A is a compact, easy-to-use terminal designed for applications ranging from data entry to program development. The HP 2392A provides additional features that increase productivity and ease of use.

All About Alphanumeric Display Terminals

The CIE 7100 Series of ANSI/ASCII terminals from CIE Systems are designed to compete the low cost terminals on IBM TWINAX, COAX, multi-user personal computers, including UNIX/XENIX, and Pick based systems.

▷ controller) for stand-alone units, and for the keyboard/ display station and terminal controller for cluster units. The *monthly and annual prime-shift maintenance charges* show the cost of service during regular business hours (usually 9 a.m. to 5 p.m., Monday through Friday).

Single entries generally indicate the price of the basic unit without options; price ranges show the price of the basic unit and the price of an expanded unit with all options, or the price of the low end and high end of a multiple-unit family. In general, all prices exclude ancillary devices.

Date of announcement indicates the date that the terminal was unveiled to the public.

Date of first production delivery indicates when the first production model of each terminal was delivered (or is scheduled to be delivered) to a customer.

Display units installed to date shows how many display units of each type had been delivered to customers as of approximately December 5, 1985. All figures were supplied by the vendors themselves, and a number of companies chose not to release this information.

Serviced by specifies the party responsible for maintaining the terminal. In some cases, the vendor provides total service; in others, a national service organization is responsible. Service is sometimes rendered under the combined efforts of both the vendor and an independent service organization; usually in this situation, the vendor handles those areas close to its headquarters or where it has a multiplicity of installations, and the service company handles other geographical areas.

COMMENTS

Comments at the bottom of the charts describe significant or unusual features, capabilities, or applications which are not reflected in the standard entries.

VENDORS

Listed below, for your convenience in obtaining additional information, are the full names and addresses of the 83 vendors whose products are summarized in the comparison charts.

Altos Computer Systems, 2641 Orchard Parkway, San Jose, CA 95134. Telephone (408) 946-6700.

Ampex Corporation, 200 N. Nash Street, El Segundo, CA 90245. Telephone (213) 640-0150.

Anderson Jacobson, Inc., 521 Charcot Avenue, San Jose, CA 95131. Telephone (408) 435-8520.

Ann Arbor Terminals, Inc., 6175 Jackson Road, Ann Arbor, Michigan 48103. Telephone (313) 663-8000.

Applied Digital Data Systems, Inc. (ADDS), 100 Marcus Boulevard, Hauppauge, NY 11788. Telephone (516) 231-5400.

AT&T, 1 Speedwell Avenue, Morristown, NJ 07960. Telephone (201) 898-2996.

Beehive International, 4910 Amelia Earhart Drive, Salt Lake City, UT 84125. Telephone (801) 355-6000.

The Braegen Corporation, 660 Calaveris, Milpitas, CA 95035. Telephone (408) 945-1900.

Burroughs Corporation (see Unisys)

Chi Corporation, 26055 Emery Road, Cleveland, OH 44128. Telephone (216) 831-2622.

CIE Systems, Inc., 2515 McCabe Way, Irvine, CA 92713-9628. Telephone (714) 660-1800.

CIE Terminals, Inc., 2505 McCabe Way, Irvine, CA 92714-6297. Telephone (714) 660-1421.

Computer Communications, Inc., 2610 Columbia Street, Torrance, CA 90503. Telephone (213) 320-9101.

Comterm, Inc., 93 Hymus Boulevard, Pointe-Claire, Quebec, Canada H9R 1E2. Telephone (514) 694-4332.

Control Data Corporation, 8100 34th Avenue South, Minneapolis, MN 55440. Telephone (612) 482-4930.

CTi Data Corporation, 5249 North Boulevard, Raleigh, NC 27604. Telephone (919) 876-8731.

Cybernex Ltd., 1257 Algoma Road, Ottawa, Ontario, Canada K1B 3W7. Telephone (613) 741-1540 or (800) 267-3660.

Data Access Systems, Inc., Coles Road & Camden Avenue, Blackwood, NJ 08012. Telephone (609) 228-0700.

Data General Corporation, 4400 Computer Drive, Westboro, MA 01580. Telephone (617) 366-8911.

Datamaxx USA Corporation, P.O. Box 6477, Tallahassee, FL 32314. Telephone (904) 224-8213.

Datamedia Corporation, 11 Trafalgar Square, Nashua, NH 03063. Telephone (603) 886-1570. ▷

All About Alphanumeric Display Terminals

▷ **Datapoint Corporation,** 9725 Datapoint Drive, San Antonio, TX 78284. Telephone (512) 699-7000.

Davox Corporation, 4 Federal Street, Billerica, MA 01821. Telephone (617) 667-4455.

Decision Data Computer Corporation, 400 Horsham Road, Horsham, PA 19044-0996. Telephone (215) 674-3300.

Delta Data Systems Corporation, 8310 Guilford Road, Columbia, MD 21046. Telephone (301) 290-6400.

Digital Equipment Corporation, 146 Main Street, Maynard, MA 01754. Telephone (617) 897-5111.

Direct, Inc., 460 Also Avenue, Santa Clara, CA 95054. Telephone (408) 980-1414.

Esprit Systems, Inc., 100 Marcus Drive, Melville, NY 11747. Telephone (516) 293-5600.

Falco Data Products, Inc., 1294 Hammerwood Avenue, Sunnyvale, CA 94089. Telephone (408) 745-7123.

General Business Technology, Inc., 1891 McGaw Avenue, Irvine, CA 92714. Telephone (714) 261-1891 or (800) 521-1891.

General Digital Corporation, 160 Chapel Road, Box 1657, Manchester, CT 06040. Telephone (203) 647-9700.

Harris Corporation, 16001 Dallas Parkway, P.O. Box 809022, Dallas, TX 75240. Telephone (214) 386-2000.

Hewlett-Packard, 1820 Embarcadero Road, Palo Alto, CA 94303. Contact your local Hewlett-Packard sales office.

Honeywell, Inc., 200 Smith Street, Waltham, MA 02154. Telephone (617) 890-8400.

Human Designed Systems, Inc., 3440 Market Street, Philadelphia, PA 19104. Telephone (215) 382-5000.

ICOT Corporation, 830 Maude Avenue, Mountain View, CA 94043. Telephone (408) 433-3300.

Informer Computer Terminals, Inc., 22936 Mill Creek Road, Laguna Hills, CA 92653-1276. Telephone (714) 855-3112.

Intecolor Corporation, 225 Scientific Drive, Norcross, GA 30092. Telephone (404) 449-5961.

Intelligent Information Systems (IIS), 92 Kansas Street, Hackensack, NJ 07601. Telephone (201) 343-8353.

International Business Machines Corporation (IBM), Old Orchard Road, Armonk, NY 10504. Contact your local IBM representative.

ITT Courier Terminal Systems, 1515 West 14th Street, Tempe, AZ 84281. Telephone (602) 894-7000.

ITT Qume Corporation, 2350 Qume Drive, San Jose, CA 95131. Telephone (408) 942-4000.

Kimtron Corporation, 1709 Junction Court, #380, San Jose, CA 95112. Telephone (408) 436-6550.

Lanpar Technologies Ltd., 85 Torbay Road, Markham, Ontario, Canada L3R 1G7. Telephone (416) 475-9123.

Lear Siegler (see Zentec)

Lee Data Corporation, 7075 Flying Cloud Drive, Eden Prairie, MN 55344. Telephone (612) 828-0300.

Lee Data Corporation, Datastream Networking Division, 2520 Mission College Blvd., Santa Clara, CA 95050. Telephone (408) 986-8022.

Liberty Electronics, 332 Harbor Way, San Francisco, CA 94080. Telephone (415) 742-7000.

Link Technologies, Inc., 2260 Paragon Drive, San Jose, CA 95131. Telephone (408) 943-0142.

Matra Communication, Inc., 1202 Charleston Road, Mountain View, CA 94043. Telephone (415) 960-3600.

McDonnell Douglass Computer Systems Company, 17481 Red Hill Avenue (T-208), Irvine, CA 92713. Telephone (714) 250-1000.

Megadata Corporation, 35 Orville Drive, Bohemia, NY 11716. Telephone (516) 589-6800.

Memorex Corporation, San Tomas at Central Expressway, Santa Clara, CA 95052. Telephone (408) 987-1000.

Micro-Term, Inc., 512 Rudder Road, Fenton, MO 63026. Telephone (314) 343-6515.

NCR Corporation, 1700 South Patterson Boulevard, Dayton, OH 45479. Telephone (513) 445-4133.

Nixdorf Computer Corporation, 300 Third Avenue, Waltham, MA 02154. Telephone (617) 890-3600.

Paradyne Corporation, 8550 Ulmerton Road, Largo, FL 33540. Telephone (813) 530-2000.

PHAZE Information Machines Corporation (a subsidiary of Lee Data Corp.), 7650 E. Redfield Road, Scottsdale, AZ 85260. Telephone (602) 991-6855.

Plessey Peripheral Systems, 17466 Daimler Avenue, Irvine, CA 92714. Telephone (714) 261-9945. ▷
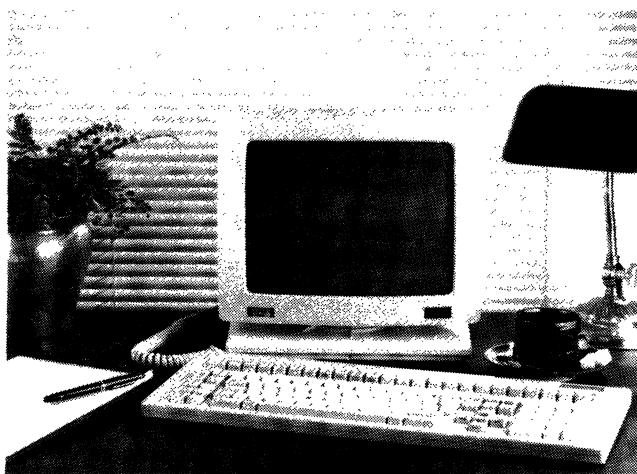
The Lee Data family of display stations feature both IBM 3270 emulation and Digital Equipment Corporation VT220 emulation. The keyboard features IBM 3180 and DEC VT220 to create a a multi-functional and easy-to-use keyboard.

All About Alphanumeric Display Terminals

▷ **Prime Computer, Inc.,** Prime Park, Natick, MA 01760. Telephone (617) 655-8000.

RCA MicroComputer Products, New Holland Avenue, Lancaster, PA 17604. Telephone (717) 295-7000.

Soroc Technology, Inc., 1921 South Baker Avenue, Ontario, CA 91761. Telephone (714) 947-0455.

Sperry Corporation (see Unisys)

Tandem Computers, Inc., 14231 Tandem Boulevard, Austin, TX 78728. Telephone (512) 244-8000.

Tandy Corporation, 1800 One Tandy Center, Fort Worth, TX 76102. Telephone (817) 390-3300.

Tatung Company of America, Inc., 2850 El Presidio Street, Long Beach, CA 90810. Telephone (213) 979-7055.

TEC, Inc., 2727 North Fairview Avenue, Tucson, AZ 85703. Telephone (602) 792-2230.

Tektronix, Inc., P.O. Box 500, Beaverton, OR 97077. Telephone (503) 643-7768.

Telegenix, Inc., 26 Olney Avenue, Cherry Hill, NJ 08034. Telephone (609) 424-5220.

Teleray, Inc., P.O. Box 24064, Minneapolis, MN 55424. Telephone (612) 941-3300.

TeleVideo Systems, Inc., 1170 Morse Avenue, Sunnyvale, CA 94086. Telephone (408) 745-7760.

Telex Computer Products, Inc., 6422 E. 41st Street, Tulsa, OK 74135. Telephone (918) 627-1111.

Term-Tronics Inc., 4990 Viewridge Ave, San Diego, CA 92123. Telephone (619) 565-6330.

Texas Instruments, Inc., P.O. Box 2909, Austin, TX 78769. Telephone (512) 250-6914.

Thomas Engineering Co., 2440 Stanwell Drive, Concord, CA 94520. Telephone (415) 680-8640.

3M Teleterminals, 311 Turquoise Street, Milpitas, CA 95035. Telephone (408) 943-1970.

Unisys Corporation, 6071 Second Avenue, Detroit, MI 48232. Telephone (313) 972-7000.

Unisys Corporation, P.O. Box 500, Blue Bell, PA 19422. Telephone (215) 542-4011.

Visual Technology, Inc., 1703 Middlesex Street, Lowell, MA 01851. Telephone (617) 459-4903.

Volker-Craig Ltd., 330 Weber Street North, Waterloo, Ontario, Canada N2J 3H6. Telephone (519) 884-9300.

Wang Laboratories, Inc., One Industrial Avenue, Lowell, MA 01851. Telephone (617) 459-5000.

Westinghouse Canada Inc., 777 Walkers Line, P.O. Box 5009, Burlington, Ontario, Canada L7R 4B3. Telephone (416) 528-8811.

Wyse Technology, Inc., 3571 North First Street, San Jose, CA 95134. Telephone (408) 433-7000.

Xpoint Corporation, 5600 Oakbrook Parkway, Suite 130, Norcross, GA 30093. Telephone (404) 446-2764.

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

Zentec Corporation, 2400 Walsh Avenue, Santa Clara, CA 95051. Telephone (408) 727-7662.

Zilog, Inc., 1315 Dell Avenue, Campbell, CA 95008. Telephone (408) 370-8000.

All About Alphanumeric Display Terminals

VENDOR AND MODEL	Altos 2	Altos 3	Altos 4	Altos 5	Ampex 210
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	No
Teletype compatibility	Std.	No	No	No	Std.
Other compatibility	Altos, ANSI X3.41 ANSI X3.64	TeleVideo 910	TeleVideo 910 & 925, ADDS Viewpoint	Altos 2, Tektronix 4010/4014	ADDS, LSI, Qume, Esprit, Televideo
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,000, 5,280	3,432	2,080	3,432	3,168
Memory capacity, no. char./lines/pages	—	3,432 char.	2,080 char.	4,160 char.	3,168 characters
Screen arrangement, lines x char./line	25x80, 40x132	26x80/132	26x80	26x80/132	25x80/132
Screen area (diagonal), inches	14	14	14	14	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	512	96 ASCII + graphics	96 ASCII + graphics	96 ASCII + graphics	168 ASCII, graphics
Symbol formation	7x12/5x7 dot matrix	10x13, 9x13 dot	7x11 dot matrix	10x13, 9x13 dot	7x10 in 9x12 field
Character phosphor	P31 green	P31 green	P31 green	P31 green	PC134 amber or P31 green
Color capability	No	No	No	No	No
Graphics	No	No	No	Opt.	Line std.
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Half intensity
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	Std.	Std.	Std.	No
Scroll	Up, down, smooth	Up/down, smooth	Up/down, smooth	Up/down, smooth	Up and smooth
Paging	3 std. (25x80)	No	No	2 std.	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Std.	Std.	Std.	Std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	Std.	Std.	Std.	Std.	No
Tabulation	Fwd./back. std.	Forward std.	Fwd./back std.	Forward std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std..	Std.	Std.	Std.	Std.
Erase	Std.	Std.	Std.	Std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	128 ASCII	128 ASCII	128 ASCII	128 ASCII	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	16 plus shifted std.	16 plus shifted std.	16 plus shifted std.	16 plus shifted std.	14 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	RS-232-C	RS-232-C	RS-232-C	RS-232-C	RS-232-C std.
Other vendor-supplied devices	—	—	—	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Async.; sync. opt.	Asynchronous
Communications protocol	—	ASCII	ASCII	ASCII; SDLC opt.	ASCII
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	50-19,200	110-19,200	110-19,200	110-19,200; 1M	50-19,200
Format	Character	Char./block	Char./line/block	Char./line/block	Char./line/block
Multipoint operation	No	No	No	Opt.	No
Terminal interface	RS-232-C	RS-232-C	RS-232-C	RS-232-C/RS-422	RS-232-C, RS-422 & 20mA opt.
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	995	795	495	995-1,295	419
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	November 1982	June 1984	October 1985	February 1986	May 1984
Date of first production delivery	March 1983	September 1984	January 1986	May 1986	July 1984
Display units installed to date	2,500	—	—		
Serviced by	Altos/TRW	Altos/TRW	Altos/TRW	Altos/TRW	Sorbus
COMMENTS				Optional RS-422 multidrop	17 resident emulations total; DIN keyboard w/adjustable slope; 7 national char. sets; CRT saver; fast screen refresh; dynamic focus; host writable line; true lc descenders

All About Alphanumeric Display Terminals

VENDOR AND MODEL	Ampex 219	Ampex 220	Ampex 230	Ampex 232	Anderson Jacobson AJ 510
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	1
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	Yes-PC	2741 (opt.)
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	DEC VT100/102/131, VT52, Wyse WY-75	DEC VT220/100/102 VT52	WY-50, ADDS VP A1, TVI 9XX, Htine 1500	TeleVideo 925	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	3,840	3,168	7,680	3,300	1,920
Memory capacity, no. char./lines/pages	80/24/2 or 132/24/1	80/25/1 or 132/25/1	80/26/4 or 132/26/2	80/25/1 or 132/25/1	—
Screen arrangement, lines x char./line	24x80/132	25x80/132	26x80/132	25x80/132	24x80
Screen area (diagonal), inches	14	14	14	14	15
Tilt/swivel screen	Std.	Std.	Std.	Std.	No
Total displayable symbols	174	266 ASCII	238 ASCII, graphics	256, 128 ASCII	128 ASCII
Symbol formation	7x11 in 9x12 field	7x11 in 9x12 field	7x11 in 9x12 field	7x11 in 9x12 field	7x10 dot matrix
Character phosphor	PC134 amber or P31 green	PC134 amber or P31 green	PC134 amber or P31 green	PC134 amber or P31 green	P31 green std.
Color capability	No	No	No	No	No
Graphics	Line std.	Line std.	Line/block std.	Line std.	—
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	No	No	Std.	Std.	No
Bold	Std.	Std.	Half intensity	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	Std.	Std.	No	Std.
Scroll	Up and smooth	Up and smooth	Up and smooth	Up std.	Up/down std.
Paging	2 std., 4 opt.	1 std., 4 opt.	2 std., 4 opt.	No	No
Selectable cursor blinking	Std.	No	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Std.
Protected format	Std.	No	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	2 std.	2 std.	Std.	No	No
Tabulation	Std.	Std.	Fwd./back std.	Fwd./back std.	Fwd. std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	—	Std.
Erase	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	—	ASCII	128 ASCII	256, 128 ASCII	128 ASCII; APL opt.
Detachability	Std.	Std.	Std.	Std.	No
Program function keys	16 std.	15 std.	16 std. (32 shift-able)	10 std.	No
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	Various, 30-200 cps
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Bidirectional std.	Bidirectional std.	Bidirectional std.	Bidirectional std.	Std.
Other vendor-supplied devices	—	—	—	—	Diskette recorder, acoustic coupler/ modems
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII/ANSI	ASCII/ANSI	ASCII	ASCII/IBM scan code	ASCII
Code	ASCII	ASCII	ASCII	ASCII/IBM scan code	ASCII
Speed, bits/second	50-38,400	50-19,200	50-38,400	38.4K	110-9600
Format	Char./line/block	Char./block	Char./line/block	Char./line/block	Char./line/page
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C std.; RS-422, 20mA opt.	RS-232-C std.; RS-422, 20mA opt.	RS-232-C std., RS-422, 20mA opt.	RS-232-C std., RS-422, 20 mA opt.	RS-232-C std.; 20mA opt.
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	599	529	519	499	195
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	27
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	July 1985	June 1985	November 1984	May 1986	—
Date of first production delivery	July 1985	November 1985	December 1984	June 1986	September 1978
Display units installed to date	—	—	—	—	—
Serviced by	Sorbus	—	—	—	Anderson Jacobson
COMMENTS	DEC VT100/VT102/ VT131/VT52, and WY-75 compatible, plus native mode; 16 programmable function keys; bidirec-printer port; 2 tional printer port 2 display pages std stat. & user lines	DEC VT220/VT100/ VT52-compatible, plus native mode; programmable user line; block mode; bidirectional printer port; variable speed smooth scroll	6,000 bytes non-volatile memory, programmable edit-ing keys, enhance mode makes advanced features available to all emulations	Line graphics, nine resident national character sets, em-bedded and nonem-bedded attributes	APL keyboard opt.; widely used in X-L applications

All About Alphanumeric Display Terminals

VENDOR AND MODEL	Anderson Jacobson AJ 520	Ann Arbor Ambassador XL	Ann Arbor Ambassador GXL+	Ann Arbor Guru XL	Ann Arbor Genie
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	1	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	No
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	DEC VT100/VT52	DEC VT100/VT52, ANSI X3.64	DEC VT100, Tektronix 4010/4014	DEC VT100, ANSI X3.64	DEC VT100/VT52, ANSI X3.64
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920, 3,168	4,800	4,800	11,200	2,400
Memory capacity, no. char./lines/pages	16K	4800/60/1	4800/60/1	Up to 25K	4800, 30/80/2
Screen arrangement, lines x char./line	24x80/132 plus status line	18x80 up to 60x80	18x80 to 60x80	Up to 66x170	30x80
Screen area (diagonal), inches	15	15	15	15	15
Tilt/swivel screen	Tilt std.	Std.	Std.	Std.	Std.
Total displayable symbols	128 ASCII	128 ASCII	128 ASCII	128 ASCII	128 ASCII
Symbol formation	10x12 dot matrix	7x9 dot matrix	7x9 dot matrix	7x9 dot matrix	7x9 dot matrix
Character phosphor	P31 green std.; amber opt.	P39 green	P39 green	Amber	Amber
Color capability	No	No	No	No	No
Graphics	—	—	Std.	—	—
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	No	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	No	No	Std.	No
Scroll	Up/down std.	Up/down slow std.	Up/down, slow std.	Up/down, smooth std.	Up/down std.; slow
Paging	8 std.	Std.	2 std.	12	2 std.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Std.	Both std.	Both std.	Both std.	Both std.
Protected format	No	Std.	Std.	Std.	Std.
Partial screen transmit	No	Std.	Std.	Std.	Std.
Split screen/windows	2	N prog. std.	N prog. std.	N. prog std.	N prog. std.
Tabulation	Fwd. std.	Fwd./back std.	Fwd./back std.	Fwd./back tab std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	128 ASCII; APL opt.	128 ASCII	128 ASCII	128 ASCII	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std.	111 std.	111	111 std.	111 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	Various, 30-200 cps	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	Std.	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	Diskette recorder, acoustic coupler/ modems	—	—	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII	ASCII, ANSI X3.64	ASCII, ANSI X3.64	ANSI X3.64	ASCII, ANSI X3.64
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	50-19,200	110-19,200	110-19,200	110-19,200	110-19,200
Format	Character	Char./line/block	Char./line/block	Char./line/block	Char./line/block
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C std.; 20mA opt.	RS-232-C	RS-232-C	RS-232-C	RS-232-C
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	695	1,595	3,090	2,395	1,395
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	31-34	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	—	July 1984	October 1984	7/84	July 1984
Date of first production delivery	September 1981	October 1984	November 1984	10/84	October 1984
Display units installed to date	—				
Serviced by	Anderson Jacobson	Ann Arbor/unit exchange	Ann Arbor/Unit Exchange	Ann Arbor	Ann Arbor/unit exchange
COMMENTS	APL unit includes line mode, user-defined overstrike memory, plus all video attributes except bold	Implements the ANSI X3.64-1979 standard; user-definable operation; user-selectable display format	Alphanumeric/graphics terminal with user-definable characters		ANSI X3.64 compatible

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VENDOR AND MODEL	Ann Arbor VXL	ADDS 2020	ADDS 3220	ADDS 1010	ADDS Viewpoint/78
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	3278
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	ANSI X3.64	TVI 910, 920, 925; ADDS VPT A1/A2	ADDS 122, DEC VT100 VT220, VT52	ADDS A1/A2, 3A+; LSI ADM 3A	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	9,600	1,920/3,168	1,920/3,168	1,920	1,920
Memory capacity, no. char./lines/pages	20K; 160/60/8	1 page, 3 opt.	1 page	1 page	1 page
Screen arrangement, lines x char./line	36x80 up to 60x160	26x80/132	24x80/132	24x80	24x80 plus status line
Screen area (diagonal), inches	15	14	14	14	12
Tilt/swivel screen	Std.	Std.	Std.	Std.	Tilt std.
Total displayable symbols	128 ASCII	128 ASCII	256 ANSI	128 ASCII	128 ASCII & 11 grph
Symbol formation	7x9 dot matrix	10x13 dot matrix	10x14 dot matrix	9x13 dot matrix	7x8 dot matrix
Character phosphor	Amber	P31 green, amber, page white	P31 green, amber, page white	P31 green, amber, page white	P4 white/P31 green green
Color capability	No	No	No	No	No
Graphics	No	32 graphic std.	—	No	11 graphic symbols
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	Std.	No	No	No
Scroll	Up/down, smooth	Up/down smooth	Up/down, smooth	Smooth	Up std.
Paging	8	—	—	—	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Std.	Both std.	Both std.
Protected format	Std.	Std.	Std.	No	No
Partial screen transmit	Std.	Std.	Std.	No	No
Split screen/windows	8 std.	Std.	Std.	No	No
Tabulation	Fwd./back std.	Fwd. back std.	Fwd./back std.	Std.	No
Character insert/delete	Std.	Std.	Std.	No	No
Line insert/delete	Std.	Std.	Std.	—	No
Erase	Char./line/screen std.	Char./line/page	Char./line/screen	Char./line/screen	Line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter, PC keyboard opt.	Typewriter	Typewriter	IBM 3278-2
Character/code set	128 ASCII	ASCII	ANSI 3.64	ASCII	ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	111 std.	16/32 std.	22 std.	4/8	24 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	No	PC keyboard interface, current loop RS-422	Current loop/RS-422	No	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ANSI X3.64	ASCII	ANSI 3.64	ASCII	ASCII
Code	ASCII	ASCII	ANSI 3.64	ASCII	ASCII
Speed, bits/second	110-19,200	Up to 19,200	Up to 19,200	Up to 19,200	110-19,200
Format	Char./line	Block	Block	Chararacter	Character
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C	RS-232-C	RS-232-C	RS-232-C std.; RS-422, 20 mA opt.	RS-232-C, 20mA opt.
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	2,795	695	695	395	1,095
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	June 1985	July 1986	August 1986	October 1986	November 1982
Date of first production delivery	October 1985	July 1986	August 1986	October 1986	January 1983
Display units installed to date					
Serviced by	Ann Arbor/unit exchange	ADDS, NCR, TRW, GE	ADDS, NCR, TRW, GE	ADDS, NCR, TRW, GE	ADDS, NCR, TRW, GE
COMMENTS	Multi-port, multi-window terminal with 4 RS-232-C ports	*New functionality added			Emulates IBM 3278 Model 2 when used with protocol converter

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VENDOR AND MODEL	ADDS Viewpoint/78 Color	AT&T 4410	AT&T 4418	AT&T 4425	AT&T E4548-12
TERMINAL DESCRIPTION					
Standalone or cluster	Either	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	3279	No	3278	3278	3178, 3278-2
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	—	ANSI X3.64 (where applicable)	—	DEC VT102, UNIX operating system	DEC VT102, UNIX operating system
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	1,920, 3,168	1,920, 3,168	1,920, 3,168	1,920,
Memory capacity, no. char./lines/pages	1 page	1 page	1 page	78 lines, 54 lines	78 lines, 54 lines
Screen arrangement, lines x char./line	24x80	24x80/132 plus 3 status lines	24x80/132 plus 3 status lines	24x80/132 plus 2 status lines	24x80 plus status line
Screen area (diagonal), inches	13	12	12	12	12
Tilt/swivel screen	Tilt std.	Tilt std.	Tilt std.	Tilt std.	Tilt std.
Total displayable symbols	128 ASCII & 11 grph.	128 ASCII, 96 graph.	128 ASCII, graphics	128 ASCII, graphics	96 EDCDIC/ASCII
Symbol formation	7x8 dot matrix	5x7/7x9 dot matrix	5x7/7x9 dot matrix	7x9 dot matrix	7x9 dot matrix
Character phosphor	P22 color	White	Amber or green	White or amber	White
Color capability	4 colors std.	No	No	No	No
Graphics	No	Std.	Std.	Std.	—
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Half-intensity	Half-intensity	Half-intensity	Half-intensity
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	No	No
Scroll	Up std.	Std.	Std.	Std.	Std.
Paging	No	1 std.	1 std.	1 std.	1 std.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Addressable std.	Addressable only	Addressable only	Addressable only
Protected format	No	No	No	No	No
Partial screen transmit	No	No	No	No	No
Split screen/windows	No	2 std.	2 std.	2 std.	2 std.
Tabulation	No	Std.	Std.	Std.	Std.
Character insert/delete	No	Std.	Std.	Std.	Std.
Line insert/delete	No	Std.	Std.	Std.	Std.
Erase	Line/screen std.	Line/screen std.	Line/screen std.	Line/screen std.	Line/screen std.
KEYBOARD PARAMETERS					
Style	IBM 3278-2	Typewriter	IBM 3278-style	IBM 3278-style	IBM 3278-style
Character/code set	ASCII	128 ASCII	128 ASCII	128 ASCII	96 EBDIC/ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std.	8 std.	24 std.	8 std.	8 std.
Numeric keypad	Std.	Std.	No	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	No	Std.	Std.	Std.	Std.
Other vendor-supplied devices	—	—	300/1200 bps modem/ dialer opt.	300/1200 bps modem/ dialer opt.	300/1200 bps modem/ dialer opt.
TRANSMISSION PARAMETERS					
Mode	Full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	—	ANSI/ASCII	ASCII/ANSI	ASCII/ANSI	ASCII/ANSI
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	110-19,200	Up to 19,200	Up to 19,200	Up to 19,200	Up to 19,200
Format	Character	Character	Character	Character	Character
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C std.; RS-422, 20 mA opt.	RS-232-C	RS-232-C	RS-232-C	RS-232-C
Integral modem	No	No	Opt.	Opt.	Opt.
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,595	902	1,080	1,265-1,720	1,265-1,720
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	May 1983	April 1983	May 1984	September 1984	September 1984
Date of first production delivery	May 1983	3rd quarter 1983	May 1984	October 1984	October 1984
Display units installed to date	—	—	—	—	—
Serviced by	ADDS, NCR, TRW, GE	AT&T	AT&T	AT&T	AT&T
COMMENTS	Color terminal designed to access 3270 applications on an IBM mainframe when used with a protocol converter		Features IBM 3270 emulation when used with a protocol converter	Features IBM 3270 emulation when used with a protocol converter	

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VENDOR AND MODEL	AT&T E4548-25	AT&T E4549-42	AT&T E4549-43	AT&T 5548	AT&T 5549
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Cluster	Cluster
Maximum displays/controller	—	—	—	32	32
Transportability	No	No	No	No	No
IBM compatibility	3278-5	3279-S2A	3279-3X, 3279-S2A	3278	3279
Teletype compatibility	Std.	Std.	Std.	No	No
Other compatibility	—	DEC VT102, UNIX operating system	—	—	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920, 3,564	1,920,	1,920, 2,560	1,920, 3,564	1,920, 2,560
Memory capacity, no. char./lines/pages	78 lines, 54 lines		78 lines, 54 lines	—	—
Screen arrangement, lines x char./line	24x80 plus status line	24x80 plus status line	24x80, 32x80 plus status line	24x80, 27x132 (13-inch only)	24/32x80
Screen area (diagonal), inches	13	13	13	12 or 13	13
Tilt/swivel screen	Tilt std.	Tilt std.	Tilt std.	Tilt std.	Tilt std.
Total displayable symbols	96 EDCDIC/ASCII	96 EDCDIC/ASCII	96 EDCDIC/ASCII	96 EBCDIC	96 EBCDIC
Symbol formation	7x9 dot matrix	7x9 dot matrix	7x9 dot matrix	9x14/7x10 dot mat.	7x10/9x14 dot mat.
Character phosphor	White	Color	Colors	White	Color
Color capability	No	4 colors std.	4 colors std.	No	4 colors std.
Graphics	—	—	—	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	No	No
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Half-intensity	Half-intensity	Half-intensity	No	No
Reverse	Std.	Std.	Std.	No	No
Double size	No	No	No	No	No
Scroll	Std.	Std.	Std.	No	No
Paging	1 std.	1 std.	1 std.	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Addressable only	Addressable only	Addressable only	Both std.	Both std.
Protected format	No	No	No	Std.	Std.
Partial screen transmit	No	No	No	Std.	Std.
Split screen/windows	2 std.	2 std.	2 std.	No	No
Tabulation	Std.	Std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Line/screen std.	Line/screen std.	Line/screen std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	IBM 3278-style	IBM 3278-style	IBM 3278-style	Typewriter, data entry	Typewriter, data entry, ext. numeric
Character/code set	96 EBDIC/ASCII	96 EBDIC/ASCII	96 EBDIC/ASCII	96 EBCDIC	96 EBCDIC
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	8 std.	24 std.	24 std.	24 std.	24 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	30-340 cps dot mat.	30-340 cps dot mat.
Line printer, type, and speed	No	No	No	220-300 lpm	300 lpm
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	300/1200 bps modem/dialer opt.	—	—	Light pen	Light pen
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Synchronous	Synchronous
Communications protocol	ASCII/ANSI	ASCII/ANSI	ASCII/ANSI	BSC, SNA/SDLC	BSC, SNA/SDLC
Code	ASCII	ASCII	ASCII	ASCII/EBCDIC	ASCII/EBCDIC
Speed, bits/second	Up to 19,200	Up to 19,200	Up to 19,200	Up to 9600	Up to 9600
Format	Character	Character	Character	Block	Block
Multipoint operation	No	No	No	Std.	Std.
Terminal interface	RS-232-C	RS-232-C	RS-232-C	RS-232-C	RS-232-C
Integral modem	Opt.	Opt.	Opt.	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	2,065-2,265	1,840	1,840	1,411-2,573	2,573
Controller, purchase	—	—	—	3,518-8,038	3,518-8,038
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	April 1983	May 1984	May 1984	April 1983	May 1984
Date of first production delivery	Third quarter 1983	May 1984	May 1984	3rd quarter 1983	May 1984
Display units installed to date	—	—	—	—	—
Serviced by	AT&T	AT&T	AT&T	AT&T	AT&T
COMMENTS				Available in three models: 12 (12-in. screen, 1920-char.), 22 (13-in. screen, 1920-char.), & 25 (13-in. screen, 1920 & 3564-char.; attach to 5544 or 5546 controller; also known as E4540	Attaches to 5544 or 5546 controller; also known as E4540 Display System

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VENDOR AND MODEL	AT&T 6518	AT&T 6528	AT&T 6529	AT&T 6538	AT&T 6539
TERMINAL DESCRIPTION					
Standalone or cluster	Cluster	Cluster	Cluster	Cluster	Cluster
Maximum displays/controller	32	32	32	32	32
Transportability	No	No	No	No	No
IBM compatibility	3270 System	3270 System	3270 System	3270 System	3270 System
Teletype compatibility	No	No	No	No	No
Other compatibility	Digital VT220	Digital VT220	Digital VT220	Digital VT220	Digital VT220
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	1,920-3,564	1,920-3,564	1,920-3,564 (x4)	1,920-3,564 (x4)
Memory capacity, no. char./lines/pages	—	—	—	—	—
Screen arrangement, lines x char./line	24x80	24/32/43x80, 27x132	24/32/43x80, 27x132	24/32/43x80, 27x132	24/32/43x80, 27x132
Screen area (diagonal), inches	12	15	14	15	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	96 EBCDIC	96 EBCDIC/256 ASCII	96 EBCDIC/256 ASCII	96 EBCDIC/256 ASCII	96 EBCDIC/256 ASCII
Symbol formation	9x13 dot matrix	9x16/12/9/14	9x16/12/9/14	9x16/12/9/14	9x16/12/9/14
Character phosphor	Amber or green	Amber or green	Color	Amber or green	Color (background, foreground select.)
Color capability	No	No	7 colors	7 colors	7 colors
Graphics	No	Line drawing set	Line drawing set	Line drawing set	Line drawing set
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	No	No	No	No	No
Double size	No	No	No	No	No
Scroll	No	Std. (VT220)	Std. (VT220)	Std. (VT220)	Std. (VT220)
Paging	No	No	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Addressable only	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	Split screen	Split screen	4 windows std.	4 windows std.
Tabulation	Std.	Std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	EBCDIC	EBCDIC/ASCII	EBCDIC/ASCII	EBCDIC/ASCII	EBCDIC/ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std.	24 std.	24 std.	24 std.	24 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	400 cps impact	400 cps impact	400 cps impact	400 cps impact	400 cps impact
Line printer, type, and speed	300 lpm belt	300 lpm belt	300 lpm belt	300 lpm belt	300 lpm belt
Composite video	No	No	No	No	No
Port for cust.-supplied devices	—	—	—	Opt. (RS-232-C)	Opt. (RS-232-C)
Other vendor-supplied devices	Alarm	Alarm, keylock	Alarm, keylock	Alarm, keylock, light pen	Alarm, keylock, light pen
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Synchronous	Sync./async.	Sync./async.	Sync./async.	Sync./async.
Communications protocol	BSC, SDLC, X.25	BSC, SDLC, X.25	BSC, SDLC, X.25	BSC, SDLC, X.25	BSC, SDLC, X.25
Code	EBCDIC/ASCII	EBCDIC/ASCII	EBCDIC/ASCII	EBCDIC/ASCII	EBCDIC/ASCII
Speed, bits/second	1200-64,000	300-64,000	300-64,000	300-64,000	300-64,000
Format	Block	Char./block	Char./block	Char./block	Char./block
Multipoint operation	Std.	Std.	Std.	Std.	Std.
Terminal interface	Twisted-pair, coaxial cable	Twisted-pair, coaxial cable	Twisted-pair, coaxial cable	Twisted-pair, coaxial cable	Twisted-pair, coaxial cable
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	Contact vendor	1,950	2,195	2,645	2,895
Controller, purchase	7,880-up	7,880-up	7,880-up	7,880-18,630	7,880-18,630
Monthly prime-shift maintenance	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Annual prime-shift maintenance	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Date of announcement	October 1985	October 1985	October 1985	October 1985	October 1985
Date of first production delivery	December 1985	December 1985	December 1985	December 1985	December 1985
Display units installed to date	—	—	—	—	—
Serviced by	AT&T	AT&T	AT&T	AT&T	AT&T
COMMENTS	Part of 6500 Multifunction Communication System; attaches to 6544 controller; controller price highly dependent on options selected	Part of 6500 Multifunction Communication System; attaches to 6544 controller; controller price highly dependent on options selected	Part of 6500 Multifunction Communication System; attaches to 6544 controller; controller price highly dependent on options selected	Part of 6500 Multifunction Communication System; attaches to 6544 controller; multitasking display; programmed symbols	Part of 6500 Multifunction Communication System; attaches to 6544 controller; multitasking display; programmed symbols

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VENDOR AND MODEL	Beehive ATL-3270	Beehive ATL-3270MS	Beehive ATL-078	Beehive ATL-178	Beehive ATL-004
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Cluster	Standalone	Cluster	Standalone
Maximum displays/controller	—	5	8	32	—
Transportability	No	No	No	No	No
IBM compatibility	3276	3276	3278	3178	No
Teletype compatibility	No	No	Std.	No	Std.
Other compatibility	—	—	Beehive DM5A	—	DEC VT52/VT100, ANSI X3.64
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	1,920	1,920	1,920	2,160, 3,564
Memory capacity, no. char./lines/pages	1 page	1920/24/1	1 page	1920/24/1	10K
Screen arrangement, lines x char./line	24x80 plus status line	24x80 plus status line	24x80 plus status line	24x80 plus status line	27x80/132
Screen area (diagonal), inches	14	14	14	14	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	128 EBCDIC	128 EBCDIC	128 EBCDIC	224 EBCDIC	128 ASCII
Symbol formation	9x13 cell	9x13 cell	9x13 cell	9x13 cell	9x13 cell
Character phosphor	P31 green or amber	P31 green or amber	P31 green	P31 green or amber	P31 green or amber
Color capability	No	No	No	No	No
Graphics	No	No	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	No	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	No	Std.
Scroll	No	No	No	No	Horiz./vert. std.
Paging	1 std.	1 std.	1 std.	1 std.	4 std.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	No	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	No	No	No	Std.
Tabulation	Fwd./back std.	Std.	Std.	Std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	No	No	No	No	Std.
Erase	Char./screen/field std.	Screen/char./field std.	Char./screen/field std.	Screen/char./field std.	Page/line/field std.
KEYBOARD PARAMETERS					
Style	Typewriter (3278-style)	3278 Typewriter	Typewriter (3278-style)	3178 Typewriter	Typewriter
Character/code set	EBCDIC	EBCDIC	ASCII/EBCDIC	EBCDIC	ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 + 3 PA keys	24 std.	24 std.	24 std.	16 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Opt.	Std.
Other vendor-supplied devices	—	—	—	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half-duplex	Half/full-duplex
Technique	Synchronous	Synchronous	Asynchronous	Synchronous	Asynchronous
Communications protocol	BSC, SNA/SDLC	BSC,SNA/SDLC	TTY	BSC, SNA/SDLC	ASCII, ANSI X3.64
Code	EBCDIC	EBCDIC	ASCII	EBCDIC	ASCII
Speed, bits/second	110-9600	110-19,200	110-19,200	Up to 19,200	50-19,200
Format	Block	Block	Char./line/block	Character	Char./line/fld./blk
Multipoint operation	Std.	Std.	No	No	No
Terminal interface	RS-232-C	RS-232-C	RS-232-C, RS-422, or 20mA	RS-232-C	RS-232-C, RS-422, or 20 mA
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,695-1,895	2,795-2,995	1,195	1,395	Contact Vendor
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	April 1984	September 1984	January 1982	September 1984	November 1983
Date of first production delivery	May 1984	Ocrober 1984	April 1982	October 1984	December 1983
Display units installed to date	—	—	—	—	—
Serviced by	Beehive & Western Union	Beehive & Western Union	Beehive & Western Union	Beehive & Western Union	Beehive & Western Union
COMMENTS	Supports serial ASCII printer	Designed to emulate IBM 3276	Designed to emulate IBM 3278 when used with CC74 controller on reduced function w/ protocol converter	Designed to emulate IBM 3178	Vertical scrolling capability for 132-character display mode

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VENDOR AND MODEL	Beehive ATL-083	Beehive ATL-220	Beehive ATL-179	Beehive ATL-180	Beehive ATL-191
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Cluster	Cluster	Cluster
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	IBM 3179	IBM 3180	IBM 3191
Teletype compatibility	No	Std.	No	No	No
Other compatibility	Burroughs TD 830/ MT 983	DEC VT220/VT100/ VT52	No	No	No
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	1,920-3,168	1,920	1,920-3,564	1,920
Memory capacity, no. char./lines/pages	16K std., 32K opt.	1 page	1,920/24/1	See comments*	1,920/24/1.
Screen arrangement, lines x char./line	24x80	24x80/132	24x80 plus two status lines	See comments*	24x80 plus two status lines
Screen area (diagonal), inches	14	14	14	14	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	128 ASCII	256	224 EBCDIC	224 EBCDIC	224 EBCDIC
Symbol formation	9x13 cell	7x9 dot matrix	7x14 in 9x16 cell	See comments*	8x13 in 12x16 cell
Character phosphor	P31 green	P31 green or amber	RGW; color	Green or amber	Green or amber std.
Color capability	No	No	4/7 colors std.	No	No
Graphics	No	Line graphics std.	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	No	No	No
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	Std.	No	No	No
Scroll	No	Jump/smooth	No	No	No
Paging	4 std., 9 opt.	No	1 std.	1 std.	1 std.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	Std.	No	No	No	No
Tabulation	Std.	Fwd./back std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	No	No	No
Erase	Page/line/screen std.	Page/line/field/ std.	Char./screen/field std.	Char./screen/field std.	Char./screen/field std.
KEYBOARD PARAMETERS					
Style	Burroughs TD 830	Typewriter (VT220-compatible)	Typewriter (3179)	Typewriter (3180)	Typewriter (3191)
Character/code set	ASCII	128 ASCII	EBCDIC	EBCDIC	EBCDIC
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	16 std.	19 std.	24 w/record/play	24 w/record/play/ storage	24 w/record/play/ storage
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	Opt.	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std. IBM parallel	Std. IBM parallel
Other vendor-supplied devices	—	—	Light pen support opt.	Light pen support opt.	Light pen support opt.
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Full-duplex	Half-duplex	Half-duplex	Half-duplex
Technique	Async./sync.	Asynchronous	Synchronous	Synchronous	Synchronous
Communications protocol	Burroughs TDI	ANSI X3.64	IBM cat. A coax	IBM cat. A coax	IBM cat. A coax
Code	ASCII	ASCII	EBCDIC	EBCDIC	DBCDIC
Speed, bits/second	50-19,200	75-19,200	2.4M Hz	2.4M Hz	2.4M
Format	Block/line/page	Char./line/block	Character	Character	Character
Multipoint operation	Std.	No	Std.	Std.	Std.
Terminal interface	RS-232-C, TDI	RS-232-C, std.;20mA RS-422 opt.	—	—	—
Integral modem	No	No	—	—	—
Integral acoustic coupler	No	No	—	—	—
PRICING AND AVAILABILITY					
Display station, purchase	Contact vendor	895	1,695 qty. 1	1,895 qty. 1	1,149 qty. 1
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	April 1982	December 1985	September 1986	September 1986	September 1986
Date of first production delivery	May 1982	December 1985	August 1986	October 1986	October 1986
Display units installed to date	—	200+	—	—	—
Serviced by	Beehive & Western Union	Beehive & Western Union	Momentum	Momentum	Momentum
COMMENTS	Designed to emulate Burroughs TD 830 & MT 983		IBM 3179 compatible unit, usable in any 3179 application; foreign national keyboard support available	* Four formats available for memory, screen arrangement, and symbol formation; IBM 3180 compatible unit, usable in any 3180 application; foreign keyboard support optional	IBM 3191 compatible unit, usable in any 3191 application; foreign national keyboard support available

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VENDOR AND MODEL	Braegen 8521	Braegen 8522	Braegen 8523	Braegen 8524	Braegen 3081
TERMINAL DESCRIPTION					
Standalone or cluster	Cluster	Cluster	Cluster	Cluster	Cluster
Maximum displays/controller	120	120	120	120	32
Transportability	No	No	No	No	No
IBM compatibility	3278	3278	3278	3180	3270, 1403, 2501
Teletype compatibility	No	No	No	No	No
Other compatibility	—	—	—	—	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	1,920, 3,564	1,920	1,920 to 3,564	2,000
Memory capacity, no. char./lines/pages	1 page	1 page	1 page	1 page	1 page
Screen arrangement, lines x char./line	24x80	24x80, 27x132	24x80	24/32/43x80, 27x132	25x80
Screen area (diagonal), inches	15	15	15	15	12
Tilt/swivel screen	Std.	Std.	Std.	Std.	No
Total displayable symbols	136 EBCDIC	136 EBCDIC	136 EBCDIC	—	196
Symbol formation	7x10 dot matrix	7x10 dot matrix	7x10/7x8 dot matrix	7x10 dot matrix	7x9 dot matrix
Character phosphor	P109 std.	P109 std.	P109 std.	P109 green	P31 green
Color capability	No	No	No	No	No
Graphics	No	No	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	No	Opt.
Double size	No	No	No	No	No
Scroll	No	No	No	Opt.	Opt.
Paging	Opt.	Opt.	Opt.	1 std.	Opt.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Std.	Std.	Std.	Std.	Std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	Opt.	Opt.	Opt.	No	No
Tabulation	Std.	Std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Opt.
Erase	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./field/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter, data entry, APL	Typewriter, data entry, APL	Typewriter, data entry, APL	Typewriter, data entry, APL	Typewriter, data entry, console
Character/code set	EBCDIC	EBCDIC	EBCDIC	96 EBCDIC	256 EBCDIC
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std.	24 std.	24 std.	24 std.	12 std; 24 opt.
Numeric keypad	Opt.	Opt.	Opt.	Opt.	Opt.
ANCILLARY DEVICES					
Serial printer, type, and speed	200/50 cps	200/50 cps	200/50 cps	200/50 cps	Various
Line printer, type, and speed	400, 1200 lpm	400, 1200 lpm	400, 1200 lpm	600, 1200 lpm	Various
Composite video	No	No	No	No	No
Port for cust.-supplied devices	No	No	No	No	No
Other vendor-supplied devices	Light pen opt.	Light pen opt.	Light pen opt.	Light pen opt.	Alarm, card reader
TRANSMISSION PARAMETERS					
Mode	Full-duplex	Full-duplex	Full-duplex	Full-duplex	Half-duplex
Technique	Synchronous	Synchronous	Synchronous	Synchronous	Synchronous
Communications protocol	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC
Code	EBCDIC	EBCDIC	EBCDIC	EBCDIC	EBCDIC
Speed, bits/second	Up to 1.5M	Up to 1.5M	Up to 1.5M	Up to 1.5M	1200-19,200
Format	—	—	—	—	Char./block
Multipoint operation	Std.	Std.	Std.	Std.	Std.
Terminal interface	Coaxial	Coaxial	Coaxial	Coaxial	Coaxial
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	August 1983	August 1983	August 1983	June 1984	—
Date of first production delivery	November 1983	November 1983	November 1983	—	—
Display units installed to date	—	—	—	—	—
Serviced by	Braegen	Braegen	Braegen	Braegen	Braegen
COMMENTS	852X displays replace channel connected IBM 3274; allows up to 60 3278 replacement terminals to communicate on one physical coax cable; may be connected to up to 4 local hosts	Same as 8521	Same as 8521	Part of ELAN sys.; switchable between screen formats; up to 60 8524 displays can communicate via one physical coax cable of up to 10,000 feet	May be connected to up to 8 IBM hosts, local & remote, and switched to operate with 14 different applications

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VENDOR AND MODEL	Braegen 3161	Chi MP-UTS Terminal	Chi MP-3270 Terminal	Chi MP-2 Terminal	Chi EMP-SI Terminal
TERMINAL DESCRIPTION					
Standalone or cluster	Cluster	Both	Cluster	Both	Both
Maximum displays/controller	32	—	2	2	—
Transportability	No	No	No	No	No
IBM compatibility	3270	Opt.*	3274/3276 BSC*	IBM 3270; Sperry*	3274/3276 BSC only
Teletype compatibility	No	Std.	No	Std.	Std.
Other compatibility	—	Sperry UTS 20/40/400, DEC VT100	Sperry UTS, DEC VT100*	Sperry UTS 20/40/400, DEC VT100	IBM mainframes using 3270; Sperry
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,000	2,025 or 3,325	2,000	2,000 or 3,325	2,025 or 3,325
Memory capacity, no. char./lines/pages	1 page	2 pages	2 pages	2 pages	2 pages
Screen arrangement, lines x char./line	25x80	24x133 (user-selectable)	24x80	24x80/133 in UTS; 24x80 in IBM	25
Screen area (diagonal), inches	15	14	14	14	14
Tilt/swivel screen	No	Std.	Std.	Std.	Tilt std.
Total displayable symbols	196	128	64	128 UTS; 64 IBM	128 UTS; 64 IBM
Symbol formation	7x9 dot matrix	7x9 dot matrix	7x9 in 10x13 cell	7x9 in 10x13 cell	7x9 in 10x13 cell
Character phosphor	P31 green	P31 green std.; amber opt.	P31 green std.;	P31 green std.;	P31 green std.;
Color capability	No	No	No	No	No
Graphics	No	No	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Opt.	Std.	Std.	Std.	Std.
Double size	No	No	No	No	No
Scroll	Opt.	Up/down	No	Up/down	Up/down
Paging	Opt.	2 std.	2 std.	2 std.	2 std.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Std.	Both std.	Addressable only	Addressable only	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	No
Split screen/windows	No	No	No	No	No
Tabulation	Std.	Fwd./back std.	Std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Opt.	Std.	Std.	Std.	Std.
Erase	Char./field/screen std.	Std.	Std.	Std.	Std.
KEYBOARD PARAMETERS					
Style	Typewriter, data entry, APL	Typewriter ** ***	Typewriter **	Typewriter**	Typewriter*
Character/code set	256 EBCDIC	ASCII	ASCII	ASCII	ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	12 std.; 24 opt.	32 std.	Std.	Std.	Std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	Various	9600 bps serial	All serial	All serial	All serial
Line printer, type, and speed	Various	All parallel prtr.	All parallel	All parallel prtr.	All parallel prtr.
Composite video	No	No	No	No	No
Port for cust.-supplied devices	No	Std.	Std.	Std.	Std.
Other vendor-supplied devices	Alarm, card reader	OCR & bar code reader	No	Opt.OCR & bar code reader	Opt. OCR & bar code reader
TRANSMISSION PARAMETERS					
Mode	Half-duplex	Full-duplex	Half-duplex	Full/half duplex	Full/half duplex
Technique	Synchronous	Sync./async.	Synchronous	Sync./async.	Synchronous
Communications protocol	BSC	Uniscope/BSC	3270 BSC	Uniscope/3270 BSC	Uniscope/BSC
Code	EBCDIC	ASCII/EBCDIC	EBCDIC	ASCII/EBCDIC	ASCII/EBCDIC
Speed, bits/second	1200-19,200	50-19,200	50-19,200	19,200 in async	19,200 BPS in sync
Format	Char./block	Block	Block	Block	Block
Multipoint operation	Std.	Std.	Pollable Std.	Pollable std.	Pollable std.
Terminal interface	Coaxial	RS-232-C, Sperry mux	RS-232-C sync (BSC) IBM format	RS-232-C**	RS-232-C**
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	Contact vendor	900 (100+ units)	$900 (100+ units)	1,475 (qty. 1)	1,675 (qty.1)
Controller, purchase	—	—	—	—	Req. fnt. end***
Monthly prime-shift maintenance	—	Available	Available	Available	Aailable
Annual prime-shift maintenance	—	Available	Available	Available	Available
Date of announcement	—	April 1985	May 1985	August 1986	September 1986
Date of first production delivery	March 1980	April 1985	June 1985	September 1986	October 1986
Display units installed to date	—				
Serviced by	Braegen	TRW, Chi	TRW, Chi	TRW, Chi	TRW, Chi
COMMENTS	May be connected to up to 8 IBM hosts, local & remote, and switched to operate with 14 different applications; APL support	*Opt. protocol upgrades avail: IBM 3270, DEC VT100, others available **Sperry UTS remapping ***Programmable function keys; cursor pad; intelligent modem cont.	*Opt. protocol upgrades avail: Sperry UTS, DEC VT100, others **IBM 3270 remapping	*Sperry UTS 20, 30, 40, 60, 400; Uniscope 200/100; SUT 1120, & IBM 3270 BSC **Port that is software configured to either Sperry UTS or IBM 3270 BSC sync operation	*IBM 3270 & Sperry UTS remapping **Port that is software configured to either Sperry UTS or IBM 3270 sync operation ***Requires use of intelligent front-end processor

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VENDOR AND MODEL	CIE Systems CIE-7800 Series	CIE Systems CIE-7100	CIE Systems CIE-7101	CIE Systems CIE-7102	CIE Systems CIE-7103
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	3178/3278/3191	3101	3101	No	No
Teletype compatibility	Opt.	Std.	No	No	No
Other compatibility	DEC VT100	DEC VT100, HP 2622A	DEC VT100, ADDS Viewpoint	DEC VT100, slave board	DEC VT100, proto-col converter
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920-3,564	2,000, 3,300	3,300	3,564	3,564
Memory capacity, no. char./lines/pages	1 page	1 page	1 page	1 page	1 page
Screen arrangement, lines x char./line	24/32/43x80, 27x132	25x80/132	25x80/132	24-27x80/132	24-27x80/132
Screen area (diagonal), inches	14	14	14	14	14
Tilt/swivel screen	Tilt std.	Tilt std.	Tilt std.	Tilt std.	Tilt std.
Total displayable symbols	Full SCII, EBCDIC	96 ASCII	256	256	256
Symbol formation	7x9 dot matrix	7x9 dot matrix	7x12 dot matrix	7x12 dot matrix	7x12 dot matrix
Character phosphor	P31 green	P31 green, amber	P31 green, amber	P31 green, amber	P31 green, amber
Color capability	No	No	No	No	No
Graphics	Limited	No	Block graphics	Block graphics	Block graphics
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	No	No	No
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	Std.	Std.	Std.	Std.
Scroll	Jump, smooth	Up/down, smooth	Smooth or jump	Smooth or jump	Smooth or jump
Paging	No	No	1	1	1
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Addressable std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	3101 mode only	No	No
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	No	Split screen	Split screen	Split screen
Tabulation	Std.	Std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter, text, APL, foreign lang	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	ASCII, EBCDIC	96 ASCII	96 ASCII	96 ASCII	96 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std.	24 std.	34-24 std.	34-24 std.	34-24 programmable
Numeric keypad	Std.	Std.	Std.	—	—
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	Light pen	No	No	No	No
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Full (3101 h/f)	Full duplex	Full duplex
Technique	Sync./async.	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	Bisynch SDLC	ASCII	ANSI/ASCII	ANSI	ANSI
Code	ASCII, EBCDIC	ASCII	ANSI/ASCII	ANSI	ANSI
Speed, bits/second	110-19.2K bps	110-19,200	110-19,200	110-19,200	110-19,200
Format	Character	Char./block	Char., 3101 ch./bl.	Character	Character
Multipoint operation	Std.	Std.	No	No	No
Terminal interface	RS-232-C, coaxial	RS-232-C	RS-232-C/RS422	RS-232-C/RS-411	RS-232-C/RS-422
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	795-1,495	695	595	645	645
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	May 1983	November 1984	November 1984	November 1985	July 1986
Date of first production delivery	November 1983	November 1984	October 1985	April 1986	October 1986
Display units installed to date	—	—	—	—	—
Serviced by	Selling party/ Momentum Svc. Corp.	Selling party	Selling party	Selling party	Selling party
COMMENTS	Lease plan available	May be ordered with alternate personality, dual networking available; sold thru ACM (Alernate Channel Marketing)	Provides 122 key IBM style keyboards for either coax or Twinax (S/3X) use with protocol converter	Expanded PC/AT keyboard for use as ANSI terminal in XENIX application or as a PC terminal with MultiLink or slave board	Provides 122 key IBM 3180 style keyboards for either coax or Twinax (S/3X) use with protocol converter

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VENDOR AND MODEL	CIE Terminals CIT-50+	CIE Terminals CIT-20	CIE Terminals CIT-101XL	CIE Terminals CIT-224	Computer Communications (CCI) 8178
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Cluster
Maximum displays/controller	—	—	—	—	Up to 40
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	3270
Teletype compatibility	Std.	Std.	Std.	Std.	No
Other compatibility	DEC VT100, WY-50	TVI 920, LSI ADM 3A/5	DEC CIE 101e	DEC VT100/VT52/ VT220	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920, 3,300	1,920	1,920, 3,300	1,920, 3,168	1,920
Memory capacity, no. char./lines/pages	80 or 132/24/1	80/24/1	80 or 132/24/1	—	—
Screen arrangement, lines x char./line	25x80/132	24x80 plus status line	24/132x80	24x80/132 plus status line	24x80 plus status line
Screen area (diagonal), inches	14	14	14	14	12
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	96 ASCII	96 ASCII	96 ASCII	96 ASCII	128 ASCII
Symbol formation	7x11 dot matrix	7x11 dot matrix	7x11 dot matrix	7x15 dot matrix	7x12 dot matrix
Character phosphor	Green, amber, white	Amber	White, green, amber green/amber opt.	Green, amber, white	P31 green
Color capability	No	No	No	No	No
Graphics	Std.	Line drawing	Std.	Std.	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	No	Std.	No	Std.
Bold	Std.	Half intensity	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	Std.	Std.	Std.	No
Scroll	Jump/smooth std.	Jump	Std.	Std.	No
Paging	No	No	4 std.	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Std.
Protected format	No	No	No	No	Std.
Partial screen transmit	No	Yes	No	No	Std.
Split screen/windows	3 std.	—	Std.	Std.	No
Tabulation	Std.	Std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	No
Erase	Std.	Std.	Std.	Std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	IBM 3278-style
Character/code set	128 ASCII	128 ASCII	128 ASCII	128 ASCII+8-bit ext.	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	16 std.	16 std.	16 std.	Std.	24 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	—	—	—	—	120 cps impact
Line printer, type, and speed	—	—	—	—	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	No	Std.	Std.	Std.
Other vendor-supplied devices	No	No	No	No	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Synchronous
Communications protocol	Asynchronous	Asynchronous	Asynchronous	Asynchronous	SNA/SDLC, BSC
Code	ASCII/ANSI	ASCII/ANSI	ASCII/ANSI	ASCII/ANSI	EBCDIC
Speed, bits/second	Up to 38.4K	Up to 19.2K	38.4K	19.2K	1200-19,200M
Format	Char.	Char./block	Character	Character	Block
Multipoint operation	No	No	No	No	Std.
Terminal interface	RS-232-C, 422/423 opt.	RS-232-C	RS-232-C. 422/423 opt.	RS-232-C, 422/423 opt.	Coaxial
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	649	399	699	749	595
Controller, purchase	—	—	—	—	3,595-4,795
Monthly prime-shift maintenance	—	—	—	—	12-25
Annual prime-shift maintenance	—	—	—	—	144-300
Date of announcement	November 1985	November 1986	November 1986	November 1985	December 1983
Date of first production delivery	December 1985	November 1986	January 1987	December 1985	January 1984
Display units installed to date	—	—	—	—	—
Serviced by	—			—	CCI
COMMENTS					Part of Group 8000; connects to 8274 controller

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VENDOR AND MODEL	Comterm 6178	Comterm 6179	Comterm 6180	Comterm 6191	Control Data Model 714
TERMINAL DESCRIPTION					
Standalone or cluster	Cluster	Cluster	Cluster	Cluster	Either
Maximum displays/controller	32	32	32	32	15
Transportability	No	No	No	No	No
IBM compatibility	3178/3278	3179	3180	3180/3278/3191	No
Teletype compatibility	No	No	No	No	No
Other compatibility	—	—	—	—	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920-3,564	1,920	1,920-3,564	1,920-3,564	1,280, 1,920
Memory capacity, no. char./lines/pages	—	—	—	—	2560, 3940 char.
Screen arrangement, lines x char./line	24/32/43x80, 27x132 plus status line	24x80	24/32/43x80, 27x132 plus status line	24/32/43x80, 27x132 plus status line	16/24x80
Screen area (diagonal), inches	14	14	15	14	8x10
Tilt/swivel screen	Std.	Std.	Std.	Std.	No
Total displayable symbols	94	94	94	94	96
Symbol formation	Dot matrix	Dot matrix	Dot matrix	Dot matrix	5x9 dot matrix
Character phosphor	P39 green	RGW color	P39 green	P39 green	P4 white
Color capability	No	7 colors std.	No	No	No
Graphics	No	No	No	No	—
Programmable field/char. highlighting via:					
Underline	No	Std.	Std.	No	Std.
Blink	No	Std.	Std.	No	No
Blank	Std.	Std.	Std.	Std.	No
Bold	Std.	Std.	Std.	Std.	No
Reverse	No	Std.	Std.	No	Std.
Double size	No	No	No	No	No
Scroll	No	No	Std.	No	No
Paging	No	No	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Addressable only	Addressable only	Addressable only	Addressable only	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	No	No	No	No
Tabulation	Std.	Std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	No	No	No	No	Std.
Erase	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./screen std.
KEYBOARD PARAMETERS					
Style	Typewriter (English & French)	Typewriter (English & French)	Typewriter (English & French)	Typewriter (English & French)	Typewriter
Character/code set	EBCDIC	EBCDIC	EBCDIC	EBCDIC	ASCII
Detachability	Std.	Std.	Std.	Std.	No
Program function keys	24 std.	24 std.	24 std.	24 std.	8 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	200 cps dot matrix	200 cps dot matrix	200 cps dot matrix	200 cps dot matrix	180 cps
Line printer, type, and speed	300 lpm band	300 lpm band	300 lpm band	300 lpm band	No
Composite video	Opt.	Opt.	Opt.	Opt.	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	Bar code reader	Light pen	No	Bar code reader	Audible alarm
TRANSMISSION PARAMETERS					
Mode	Half-duplex	Half-duplex	Half-duplex	Half-duplex	Half/full-duplex
Technique	Synchronous	Synchronous	Synchronous	Synchronous	Synchronous
Communications protocol	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC	ASCII, CDC
Code	EBCDIC	EBCDIC	EBCDIC	EBCDIC	ASCII
Speed, bits/second	1200-19,200	1,200-19,200	1,200-19,200	1,200-19,200	2000-9600
Format	Block	Block	Block	Block	Block
Multipoint operation	No	Std.	No	No	Std.
Terminal interface	Coax Type A	Coax Type A	Coax Type A	Coax Type A	RS-232-C
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	Contact vendor	Contact vendor	Contact vendor	Contact vendor	4,490-10,108
Controller, purchase	Contact vendor	Contact vendor	Contact vendor	Contact vendor	—
Monthly prime-shift maintenance	Contact vendor	Contact vendor	Contact vendor	Contact vendor	53-82
Annual prime-shift maintenance	Contact vendor	Contact vendor	Contact vendor	Contact vendor	—
Date of announcement	1986	1986	1986	1986	May 1978
Date of first production delivery	1986	1986	1986	1986	May 1978
Display units installed to date	—	—	—	—	Over 500
Serviced by	Comterm	Comterm	Comterm	Comterm	Control Data
COMMENTS	Attaches to Comterm 6274 controller or IBM 3274 compatible	Attaches to Comterm 6274 controllers or IBM 3274 compatible	Attaches to Comterm 6274 controller or IBM 3274 compatible controller	Attaches to Comterm 6274 controllers or IBM 3274 compatible	

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VENDOR AND MODEL	Control Data Model 721	Control Data Model 722-10	Control Data Model 722-30	CTi Data CTi 1000A	CTi Data CTi 3078
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Cluster
Maximum displays/controller	—	—	—	—	16
Transportability	No	No	No	No	No
IBM compatibility	3276 opt.	No	No	IBM 2740/1, /2	3278-2
Teletype compatibility	Std.	Std.	Std.	No	No
Other compatibility	CDC 722	Control Data	CDC Advanced Mode, ADDS Viewpt., ANSI	None	None
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920-3,960	1,920	1,920	1,920	1,920
Memory capacity, no. char./lines/pages	—	—	—	20K	1 page
Screen arrangement, lines x char./line	24/30x80, 24/30x132	24x80	24x80	24x80	24x80
Screen area (diagonal), inches	15	12	12	12	12
Tilt/swivel screen	Std.	No	Std.	Tilt std.	Tilt std.
Total displayable symbols	96 ASCII	96 ASCII	128 ASCII	64	64
Symbol formation	8x16/5x16 dot matrix	8x10 dot matrix	7x9 in 10x12 cell	5x7 dot matrix	7x9 dot matrix
Character phosphor	P39 green	P4 white	P31 green	Green	Green
Color capability	No	No	No	No	No
Graphics	Std. (721-31)	—	31 special char.	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	No	No
Blink	Std.	Std.	Std.	No	No
Blank	Std.	No	Std.	No	Std.
Bold	No	Std.	Std.	No	Std.
Reverse	Std.	No	Std.	No	No
Double size	No	No	No	No	No
Scroll	Up std.	Up/down std.	Step std.	Std.	No
Paging	1 std.	1 std.	1 std.	No	No
Selectable cursor blinking	Std.	Std.	Std.	No	No
Addressable/readable cursor	Both std.	Both std.	Addressable only	No	Addressable std.
Protected format	Std.	No	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	No	No	Std.	No
Tabulation	Std.	Std.	Std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	No	Std.
Erase	Char./screen std.	Std.	Std.	Char. std.	Std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	ASCII	ASCII	128 ASCII	64	64
Detachability	Std.	No	Std.	Std.	Std.
Program function keys	15 std.	12 std.	12 std.	15 std.	24 std.
Numeric keypad	Std.	Std.	Std.	Std.	No
ANCILLARY DEVICES					
Serial printer, type, and speed	40/55/150/200 cps	150 cps	40/55/150/200 cps	80 & 180 cps	180 cps
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	No
Other vendor-supplied devices	Audible alarm, touch panel, graphics (Tektronix 401X emulation)	Audible alarm	Audible alarm std.	55 cps document printer	55 cps document printer
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Async./sync. opt.	Asynchronous	Asynchronous	Asynchronous	Synchronous
Communications protocol	ASCII, BSC opt.	ASCII, TTY	ASCII	IBM 2740	BSC, SNA/SDLC
Code	ASCII	ASCII	ASCII	EBCDIC	EBCDIC
Speed, bits/second	110-19,200	110-9600	75-19,200	To 1800 bps	Up to 9600
Format	Char./block	Character	Char./block	Block	Character
Multipoint operation	Opt.	No	No	Std.	Std.
Terminal interface	RS-232-C	RS-232-C	RS-232-C, CCITT V.24, or 20 mA	RS-232-C	RS-422
Integral modem	Opt.	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	2,295/2,895	850	850	2,350	1,250
Controller, purchase	—	—	—	—	6,400
Monthly prime-shift maintenance	31/43	25	16	25	14
Annual prime-shift maintenance	—	—	192	—	—
Date of announcement	April 1982	February 1981	April 1984	June 1982	March 1983
Date of first production delivery	June 1982	February 1981	September 1984	July 1982	April 1983
Display units installed to date	Over 15,000	Over 9000	Over 1000	Over 500	—
Serviced by	CDC	Control Data	Control Data	TRW	TRW
COMMENTS	721-21—Basic TTY; 732-31—Basic TTY & PLATO/Graphics; three maintenance options: On-Site; Mail-in to service center; Customer self-maintenance 1-year lease—$125/ 159 per month	1-year lease—$50/ month	1-year lease—$50/ month; quantity pricing: 20-49 units—$700 each; 50-99 units—$650 each		

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VENDOR AND MODEL	Cybernex RH 7814	Cybernex RH 7813	Cybernex RH 7305	Cybernex RB 1100	Cybernex XLA D200
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Concatenation	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	No
Teletype compatibility	No	No	No	No	Std.
Other compatibility	Honeywell VIP 7800 Series	Honeywell VIP 7800/7300 Series	Honeywell VIP 7300	Burroughs ET 1100	Data General D200
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,080	2,080	2,080	2080	1,920
Memory capacity, no. char./lines/pages	80x20x3	80x24x3	80x24x3	15 pages	1 page
Screen arrangement, lines x char./line	24x80 plus 2 status lines	24x80 plus 2 status lines	24x80 plus 2 status lines	12/24x40/80 plus 2 status lines	24x80
Screen area (diagonal), inches	14	14	14	14	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	128 ASCII & 11	128 ASCII & 11 & 14	128 ASCII & 11	256 ASCII	128 ASCII
Symbol formation	7x9 dot matrix	7x9 dot matrix	7x9 dot matrix	7x9 dot matrix	7x9 dot matrix
Character phosphor	P31 green	P31 green	P31 green	P31 green	P31 green
Color capability	Opt. 16 colors	Opt. 16 colors	No	Opt. 16 colors	No
Graphics	11 line drawing	11 line drawing	11 line drawing	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	No
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	Std.	No
Scroll	Up/down std.	Up/down std.	Up/down std.	Up/down std.	Up std.
Paging	72-line scroll	72-line scroll	No	15 std.	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	No
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	No	Std.	No
Partial screen transmit	Std.	Std.	Std.	Std.	No
Split screen/windows	No	No	No	No	No
Tabulation	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.	No
Character insert/delete	Std.	Std.	Std.	Std.	No
Line insert/delete	Std.	Std.	Std.	Std.	No
Erase	Char./line/page std.	Char./line/page std.	Char./line/page std.	Char./line/page std.	Line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter, multifunction	Typewriter, multifunction	Typewriter (Burroughs)	Typewriter
Character/code set	128 ASCII	128 ASCII	128 ASCII	128 ASCII	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	12 plus 10 programmable	12 plus 10 programmable	12 plus 10 programmable	10 physical; 20 logical	15 fixed; 15 programmable
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	No	Std.	Std.
Other vendor-supplied devices	Opt.	Opt.	—	Opt.	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half-duplex	Half/full-duplex
Technique	Sync./async.	Sync./async.	Asynchronous	Async./sync.	Asynchronous
Communications protocol	Honeywell/ASCII	Honeywell/ASCII	Honeywell/ASCII	Burroughs	ASCII
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	Up to 38,400	Up to 38,400	Up to 38,400	Up to 38,400	Up to 19,200
Format	Char./block	Char./block	Character	Line/block	Character
Multipoint operation	Std.	Std.	No	Std.	No
Terminal interface	RS-232-C, RS-422, or 20mA	RS-232-C, RS-422, or 20mA	RS-232-C, RS-422, or 20mA	RS-232-C, TDI	RS-232-C or 20mA
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	March 1985	March 1985	March 1985	December 1985	February 1982
Date of first production delivery	March 1985	September 1985	September 1985	December 1985	May 1982
Display units installed to date	—	—	—	—	—
Serviced by	Cybernex, third party vendors	Cybernex, third party vendors	Cybernex, third party vendors	Cybernex, third party vendors	Cybernex, third party vendors
COMMENTS	Upward-compatible from Cybernex SA 7814 & SA 7800; sold exclusively in Canada by Honeywell Canada; lifetime keyboard warranty	Sold exclusively in Canad by Honeywell Canada; lifetime keyboard warranty	Lifetime keyboard warranty	Totally remappable keyboard; 109-key keyboard, ET 1100-compatible, with extra cursor pad; lifetime keyboard warranty; upward compatible with Cybernex SA 830	Print page, through print with display, both buffered; 15 function keys, with up to 80 characters each; lifetime keyboard warranty

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VENDOR AND MODEL	Cybernex XLA 87 Series	Cybernex RH 7816	Cybernex RG 220 Turbo	Cybernex XLB 4309	Cybernex XM 3270
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	3278 w/prot. conv.
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	See comments	Honeywell VIP 7800/7700	Digital VT220	MAI Basic Four EVDT 4309	ANSI X3.64
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,000	2,080	Up to 3,248	2,000	2,000
Memory capacity, no. char./lines/pages	1 page	80x24x3	1 page	1 page	1 page
Screen arrangement, lines x char./line	24x80	24x80 plus 2 status lines	24x80/132 plus status line	24x80 plus status line	24x80 plus status line
Screen area (diagonal), inches	14	14	14	14	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	128 ASCII	139	384 ASCII	128 ASCII	128 ASCII
Symbol formation	7x9 dot matrix	7x9 dot matrix	7x10/10x14	7x9 dot matrix	7x9 dot matrix
Character phosphor	P31 green	P31 green	P31 green	P31 green	P31 green
Color capability	No	16 opt.	No	No	No
Graphics	Bus. graphics opt.	11 line drawing	Bus. graph./prog.	Business graphics	No
Programmable field/char. highlighting via:					
Underline	No	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Opt.	Std.	No	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Opt.	No	Std.	No	No
Scroll	Up/down std.	Up/down std.	Up/down, smooth	Up/down std.	Up/down std.
Paging	No	72 line scroll	1 std.	1 std.	No
Selectable cursor blinking	Opt.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	No	Std.	Read modified
Split screen/windows	No	No	Std.	No	No
Tabulation	Fwd./back std.	Fwd./back std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Char./line/page std.	Char./line/page std.	Char./line/page std.	Char./line/page std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter (IBM)
Character/code set	128 ASCII	128 ASCII	256 ASCII	128 ASCII	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	Varies; model dependent	12 & 10 std.	105 (6 banks of 15 keys)	28 std.	24 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	Std.	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	—	Opt.	Opt.	Opt.	Opt.
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asyn/sync	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII	Honwywell/ASCII	ASCII	ASCII	ASCII
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	Up to 19,200	Up to 38,400	Up to 38,400	Up to 38,400	Up to 38,400
Format	Char./block	Char./block	Character	Char./block	Char./block
Multipoint operation	No	Std.	No	No	No
Terminal interface	RS-232-C or 20mA	RS-232-C, RS-422, or 20 ma	RS-232-C, RS-423, 20mA	RS-232-C std.	RS-232-C std.; RS-422 opt.
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	January 1982	—	March 1985	October 1985	September 1983
Date of first production delivery	March 1982	—	June 1985	October 1985	November 1983
Display units installed to date	—	—	—	—	—
Serviced by	Cybernex, third party vendors	Cybernex, third party vendors	Cybernex, third party vendors	Cybernex, third party vendors	Cybernex, third party vendors
COMMENTS	Emulations for Hazeltine 1510/1520 Rexon 303, others; lifetime keyboard warranty; customization available, volume dependent	Lifetime keyboard warranty	Special Cybernex menu with extra functions beyond DEC; 6 banks of 15 keys each in addition to 15 programmable function keys; lifetime keyboard warranty; 106 keys	Completely MAI-compatible, including Basic Four motor bars; 114 keys; lifetime keyboard warranty	Block mode terminal suited to packet-switched networks; supported by Simware, Pearle, & IBM 7171 protocol converters; IBM 3278 keyboard layout; selectable ANSI X3.64 mode

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VENDOR AND MODEL	Cybernex XLB 3178	Cybernex XLB 5291	Cybernex RH 7826	Cybernex XLAS 110	Cybernex XLA 87H+
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	3178 w/prot. conv.	5291 w/prot. conv.	No	No	No
Teletype compatibility	Std.	Std.	No	No	Std.
Other compatibility	ANSI X3.64	ANSI X3.64	Honeywell VIP 7800/ 7700	Cybernex MDLS 1100/	Hazeltine 1500, 1510, 1520
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,000	2,000	2,080	2,000	1,920
Memory capacity, no. char./lines/pages	1 page	1 page	80x24x3	1 page	1 page
Screen arrangement, lines x char./line	24x80 plus status line	24x80 plus status line	24x80 plus 2 status lines	24x80 plus 1 status line	24x80 plus 1 status line
Screen area (diagonal), inches	14	14	14	14	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	128 ASCII	128 ASCII	153	128 ASCII	128 ASCII
Symbol formation	7x9 dot matrix	7x9 dot matrix	7x9 dot matrix	7x9 dot matrix	7x9 dot matrix
Character phosphor	P31 green	P31 green	P31 green	P31 green	P31 green
Color capability	No	No	16 opt.	No	No
Graphics	No	No	11 line drawing	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	No
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	No	No
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	No	No
Scroll	Up/down std.	Up/down std.	Up/down std.	Up/down std.	Up std.
Paging	No	No	72 line scroll	No	No
Selectable cursor blinking	Std.	Std.	Std.	No	Opt.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	No	No	Std.	Std.	Std.
Split screen/windows	No	No	No	No	No
Tabulation	Std.	Std.	Fwd./back std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Char./line/screen std.	Char./line/screen std.	Char./line/page std.	Char./line/page std.	Char./line/page std.
KEYBOARD PARAMETERS					
Style	Typewriter (IBM)	Typewriter (IBM)	Typewriter/multi-function	Typewriter	Typewriter
Character/code set	128 ASCII	128 ASCII	128 ASCII	128 ASCII	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std., plus all non-ASCII keys	24 std., plus all non-ASCII keys	12 & 10 std.	10 std.	10 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	Opt.	Opt.	Opt.	Opt.	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asyn/sync	Asynchronous	Asynchronous
Communications protocol	ASCII	ASCII	Honwywell/ASCII	ASCII	ASCII
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	Up to 38,400	Up to 38,400	Up to 38,400	Up to 19,200	Up to 19,200
Format	Character	Character	Char./block	Char./block	Char./block
Multipoint operation	No	No	Std.	No	No
Terminal interface	RS-232-C std.; RS-422 opt.	RS-232-C std.; RS-422 opt.	RS-232-C, RS-422, or 20 mA	RS-232-C or 20 mA	RS-232-C or 20 mA
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	January 1986	January 1986	—	—	—
Date of first production delivery	—	—	—	—	—
Display units installed to date	—	—	—	—	—
Serviced by	Cybernex, third party vendors	Cybernex, third party vendors	Cybernex, third party vendors	Cybernex, third party vendors	Cybernex, third party vendors
COMMENTS	Character mode terminal; works with any protocol converter; looks to operator as 3278-2; looks to protocol converter as VT100; lifetime keyboard warranty	Character mode terminal; works with any protocol converter; looks to operator as 5291; looks to protocol converter as VT100; lifetime keyboard warranty	Sold exclusively in Canada by Honeywell Canada; lifetime keyboard warranty		Lifetime keyboard warranty

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VENDOR AND MODEL	Cybernex XLA 110	Cybernex RB 1210	Data Access Systems DASI AT1183	Data General Dasher D214/D215	Data General Dasher D286
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Concatenation	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	16	—
Transportability	No	No	Desk top	No	No
IBM compatibility	No	No	Yes, w/converter	No	IBM PC AT
Teletype compatibility	Std.	No	No	Std.	Std.
Other compatibility	See comments	Burroughs ET1100, ET1210	Burroughs ET110/T27 DEC VT220	DG Dasher, ANSI X3.64	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	2,080	3,696	1,920	1,920
Memory capacity, no. char./lines/pages	1 page	360 lines	144KB	—	640K
Screen arrangement, lines x char./line	24x80 plus 1 status line	12/24x40/80 plus 2 status lines	28x80/132/40/66	24x80	24x80
Screen area (diagonal), inches	14	14	14	12	13
Tilt/swivel screen	Std.	Std.	Std.	Tilt std.	Std.
Total displayable symbols	128 ASCII	256 ASCII	128 ASCII	128; 256	96 ASCII
Symbol formation	7x9 dot matrix	7x9 dot matrix	9x11	7x9	7x10 dot matrix
Character phosphor	P31 green	P31 green	P31 green	Green or amber	Color
Color capability	No	Opt. 16 colors	No	No	8 colors std.
Graphics	No	No	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	No	Std.	Std.	No	No
Bold	Std.	Std.	Std.	Dim std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	Std.	Std.	No	No
Scroll	Up/down std.	Up/down std.	Std.	Jump std.	Up std.
Paging	No	15 std.	12 std.	No	No
Selectable cursor blinking	No	Std.	Std.	No	No
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	Std.	No	No
Partial screen transmit	Std.	Std.	Std.	No	No
Split screen/windows	No	No	2 windows	No	No
Tabulation	Fwd./back std.	Fwd./back std.	Fwd/back std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	No	No
Line insert/delete	Std.	Std.	Std	No	No
Erase	Char./line/page std.	Char./line/page std.	Char./line/screen	Line/screen std.	Line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter (Burroughs)	Typewriter	Typewriter	Typewriter
Character/code set	128 ASCII	128 ASCII	128 ASCII	128 ASCII	128 ASCII
Detachability	Std.	Std.	Std	Std.	Std.
Program function keys	3 std., 16 opt.	10 physical/20 logical	300 Std.	15 std.	15
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	—	No	No
Line printer, type, and speed	No	No	—	No	No
Composite video	No	No	—	No	No
Port for cust.-supplied devices	Std.	Std.	—	Std. (D211 only)	Opt.
Other vendor-supplied devices	—	Opt.	—	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Full-duplex	Full-duplex
Technique	Asynchronous	Async/sync	Async/sync	Asynchronous	Asynchronous
Communications protocol	ASCII	Burroughs	Burrough poll/selec	ASCII	ASCII
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	Up to 19,200	Up to 38,400	75-384KB	50-19,200	Up to 19,200
Format	Char./block	Line/block	Line, block	Character	Character
Multipoint operation	No	Std.	Std.	No	No
Terminal interface	RS-232-C or 20 mA	RS-232-C; TDI mA	Rs-232-C/TDI	RS-232-C; RS-422 20mA (D211)	2 RS-232-C or 20mA
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	Contact vendor	Contact vendor	1,455	797/895	3,395-4,095
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	19	13/15	—
Annual prime-shift maintenance	—	—	180	—	—
Date of announcement	December 1986	December 1986	October 1985	First quarter 1986	8/81
Date of first production delivery	January 1987	March 1987	November 1985	First quarter 1986	—
Display units installed to date	—	—	3,300	—	—
Serviced by	Cybernex, third party vendors	Cybernex, third party vendors	Data Access Systems	Data General	Data General
COMMENTS	Lifetime keyboard warranty; OEM char/block mode	Lifetime keyboard warranty; totally remappable; 109-key keyboard, includes extra cursor pad; upwardly compatible with Cybernex SA-830, RB 1100	AT1183 is a Burroughs compatible, dual simultaneous host terminal compatible w/ET1100/TD830/T27 on the primary host, and DEC VT220 on the secondary host		Lease and rental available via third parties and terminal resellers

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VENDOR AND MODEL	Data General Dasher D411	Data General Dasher D461	Datamaxx EXT-4300	Datamaxx EXT-1200	Datamaxx EXT-7301
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	16	16	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	3278	3278	3278
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	DG D400, ANSI X3.64	DG D400, ANSI X3.64	See comments	DEC VT100; see comments	See comments
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,944, 3,240	1,944, 3,240	2,000	2,000	2,000
Memory capacity, no. char./lines/pages	—	—	10 pages	10 pages	10 pages
Screen arrangement, lines x char./line	24x81/135	24x81/135	25x80	25x80	25x80
Screen area (diagonal), inches	12	12	14; 12 opt.	14; 12 opt.	14; 12 opt.
Tilt/swivel screen	Tilt std.	Tilt std.	Std.	Std.	Std.
Total displayable symbols	256	256	128	128	128
Symbol formation	7x11 in 10x12 cell	7x11 in 10x12 cell	7x11 dot matrix	7x11 in 10x12 cell	7x11 in 10x12 cell
Character phosphor	P31 green or amber	P31 green or amber	P39 green	P31 green std.; amber opt.	P31 green std.; amber opt.
Color capability	No	No	No	No	No
Graphics	No	Std.	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	No	No	Std.	Std.	Std.
Bold	Dim std.	Dim std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	No	No
Scroll	Up/down/horizontal	Up std.	Up/down std.	Up/down std.	Up std.
Paging	No	No	10 std.	10 std.	10 std.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	No	No	Std.	Std.	Std.; NCR msg. mode
Split screen/windows	24 std.	24 std.	No	No	No
Tabulation	Std.	Std.	Fwd./back std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Line/screen/window std.	Line/screen/window std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	128 ASCII	128 ASCII	128 ASCII	128 ASCII	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	15 std.	15 std.	40 std.	40 std.	40 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	340 cps matrix	340 cps matrix	340 cps matrix
Line printer, type, and speed	No	No	1000 lpm band	1000 lpm band	1000 lpm band
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	—	—	IBM PC-compatible	IBM PC-compatible	IBM PC-compatible
TRANSMISSION PARAMETERS					
Mode	Full-duplex	Full-duplex	Half-duplex	Half-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Async./sync.	Async./sync.	Asynchronous
Communications protocol	ASCII	ASCII	Polled	Polled	Polled
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	110-19,200	110-19,200	300-38,400	300-38,400	300-19,200
Format	Character	Character	Char./line/block	Char./line/block	Line/page
Multipoint operation	No	No	Std.	Std.	Std.
Terminal interface	RS-232-C, RS-422, or 20mA	RS-232-C, RS-422, or 20mA	RS-232-C, TDI std.	RS-232-C, TDI std.	RS-232-C, NCR
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,635	1,835	1,550	1,695	1,695
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	17	19	25	25	25
Annual prime-shift maintenance	—	—	240	240	240
Date of announcement	5/83	May 1983	—	—	—
Date of first production delivery	7/83	July 1983	May 1984	May 1985	May 1985
Display units installed to date	—	—	2,000	400	200
Serviced by	Data General	Data General	Datamaxx, TRW, Western Union	Datamaxx, TRW, Western Union	Datamaxx, TRW, Western Union
COMMENTS		Alphanumeric and character-mapped graphics terminal; additional 3572 user-defined characters/symbols available	Compatible with Burroughs MT983 & ET1100, NCR 796-301 & 7900 Model 3; can be upgraded to workstation with Exxpert II—no extra software needed; quantity discounts available	Compatible with Burroughs MT983 & ET1100, NCR 796-301 & 7900 Model 3; can be upgraded to workstation with Exxpert II—no extra software needed; quantity discounts available	Compatible with Burroughs MT983 & ET1100, NCR 796-301 & 7900 Model 3; can be upgraded to workstation with Exxpert II—no extra software needed; quantity discounts available

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VENDOR AND MODEL	Datamaxx DMX-1100	Datamedia ColorScan 90	Datamedia Elite 90	Datamedia ColorScan 60	Datapoint 8242
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	Variable
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	W/Datapoint proc.
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	Burroughs ET 1100	ADDS Regent 25, LSI ADM 3A	ADDS Regent 25, LSI ADM 3A	ANSI X3.64, DEC VT100-131	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,000	1,920, 3,168	1,920, 3,168	1,920, 3,168	1,920
Memory capacity, no. char./lines/pages	10 pages	—	—	—	80/25/1
Screen arrangement, lines x char./line	25x80	24x80/132	24x80/132	24x80/132	25x80
Screen area (diagonal), inches	14; 12 opt.	—	—	—	14
Tilt/swivel screen	Std.	Swivel	Tilt std.	Tilt std.	Std.
Total displayable symbols	128	95 ASCII	95 ASCII	95 ASCII	96 ASCII
Symbol formation	7x11 in 10x12 cell	7x9 dot matrix	7x9 dot matrix	5x7 dot matrix	7x9 dot matrix
Character phosphor	P31 green	—	—	—	Amber
Color capability	No	8 colors	No	No	No
Graphics	No	Opt.	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	No
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	—	Std.	—	No
Reverse	Std.	Std.	Std.	Std.	No
Double size	No	Std.	Std.	Std.	No
Scroll	Up/down std.	Smooth	Smooth	Smooth	Up/down std.
Paging	10 std.	—	—	—	1 page
Selectable cursor blinking	Std.	Std.	Std.	No	Std.
Addressable/readable cursor	Both std.	Addressable	Addressable	Addressable	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	No	No	No	Std.
Split screen/windows	No	Std.	Std.	No	Std.
Tabulation	Fwd./back std.	Std.	Std.	Std.	Std.
Character insert/delete	Std.	No	No	No	Std.
Line insert/delete	Std.	No	No	No	Std.
Erase	Char./line/screen std.	—	—	—	Line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	—	—	—	Typewriter (Selectric)
Character/code set	128 ASCII	95 ASCII	95 ASCII	95 ASCII	96 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	20 std.	18 precoded	18 precoded	15 user program, 4 precoded	10 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	340 cps matrix	—	—	—	30/160/300 cps imp.
Line printer, type, and speed	1000 lpm band	—	—	—	300/600 lpm band
Composite video	No	—	—	—	No
Port for cust.-supplied devices	Printer port std.	Std.	Std.	Std.	RS-232-C std.
Other vendor-supplied devices	—	—	—	—	—
TRANSMISSION PARAMETERS					
Mode	Half-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Async./sync.	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	Polled	—	—	—	—
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	300-9.6K/19.2K	50 to 19,200	50 to 19,200	50 to 19,200	50-19,200
Format	Char./line/page	Character	Character	Character	Character
Multipoint operation	Std.	—	—	—	Std.
Terminal interface	RS-232-C, TDI	RS-232-C std., 20 mA opt.	RS-232-C std., 20 mA opt.	RS-232-C std., 20 mA opt.	RS-232-C
Integral modem	No	—	—	—	No
Integral acoustic coupler	No	—	—	—	No
PRICING AND AVAILABILITY					
Display station, purchase	1,495	1,850	925	950	1,395
Controller, purchase	—	—	—	—	Processor dependent
Monthly prime-shift maintenance	25	—	—	—	14
Annual prime-shift maintenance	240	—	—	—	168
Date of announcement	—	—	—	—	October 1985
Date of first production delivery	September 1985	—	—	—	October 1985
Display units installed to date	200	—	—	—	150
Serviced by	Datamaxx, TRW, Western Union	Datamedia	Datamedia	Datamedia	Intelogic Trace, Inc.
COMMENTS	Quantity discounts available				

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VENDOR AND MODEL	Datapoint 8215	Davox 1900	Davox 4900	Davox 5900	Decision Data 3761-41/61
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Cluster	Cluster	Cluster	Either
Maximum displays/controller	Variable	8	8	8	8
Transportability	No	No	No	No	No
IBM compatibility	Via processor	3270 BSC/DSLC	3270 BSC & SDLC	3270 BSC & SDLC	5291
Teletype compatibility	Std.	Std.	Std.	Std.	No
Other compatibility	ADDS, Hazeltine, Lear Siegler, Qume	DEC VT100	DEC VT220	DEC VT220	5251-11
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	2,000	2,000-3,000	2,000-3,000	1,920
Memory capacity, no. char./lines/pages	80/25/1	1 std.	1 page	1 page	256
Screen arrangement, lines x char./line	25x80	24x80 plus 3 status lines	24x80 plus 3 ststus lines	24x80 plus 3 status lines	24x80 plus status line
Screen area (diagonal), inches	14	12	12	12	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	96 ASCII	128	128	128	96, MNC-188
Symbol formation	7x9 dot matrix	7x9 in 9x12 cell	7x9 in 9x12 cell	7x9 in 9x12 cell	8x12 dot matrix
Character phosphor	Amber	P31 green or amber	P31 green or amber	Color	P39 green
Color capability	No	No	No	7 std.	No
Graphics	No	No	No 3270/opt. async.	No 3270/opt. async.	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	No	Std.	Std.	Std.	Std.
Double size	No	No	VT220 only	VT220 only	No
Scroll	Up std.	Jump	Std.	Std.	Std.
Paging	1 page	3 std.	3 std.	3 std.	Std.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	—	—	—	Std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	—	—	—	Std.
Split screen/windows	No	No	Unlimited	Unlimited	Window
Tabulation	Std.	Std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Line/screen std.	Std.	Std.	Std.	Std.
KEYBOARD PARAMETERS					
Style	Typewriter (Selectric)	Typewriter	Typewriter	Typewriter	Typewriter 83 keys or 122 keys
Character/code set	96 ASCII	64 ASCII/96 EBCDIC	64 ASCII/96 EBCDIC	64 ASCII/96 EBCDIC	EBCDIC
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	14 std.	Std.	Std.	Std.	24 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	30/160/300 cps imp.	No	No	No	No
Line printer, type, and speed	300/600 lpm band	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	RS-232-C std.	Rs-232-C std.	RS-232-C std.	RS-232-C std.	No
Other vendor-supplied devices	—	—	—	—	Keylock
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half-duplex
Technique	Asynchronous	Sync./async.	Sync./async.	Sync./async.	Synchronous
Communications protocol	—	ASCII/BSC/SNA	ASCII/BSC/SNA	ASCII/BSC/SNA	BSC, SNA/SDLC
Code	ASCII	EBCDIC/ASCII	EBCDIC/ASCII	EBCDIC/ASCII	EBCDIC
Speed, bits/second	50-19,200	300-19,200	300-19,200	300-19,200	Up to 1M
Format	Character	Char./block	Char./block	Char./block	Block
Multipoint operation	Std.	Std.	Std.	Std.	Std.
Terminal interface	RS-232-C	RS-232-C	RS-232-C	RS-232-C	Twinax
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	599	1,295-2,995	2,695	2,695	1,195
Controller, purchase	Processor dependent	4,595	4,595	4,595	—
Monthly prime-shift maintenance	11	—	—	—	—
Annual prime-shift maintenance	154	92-185	115-275	135-323	3 yr. warranty
Date of announcement	October 1985	December 1983	May 1986	May 1986	May 1985
Date of first production delivery	July 1985	January 1984	June 1986	June 1986	May 1985
Display units installed to date	250	7,000	1,000	1,000	25,000
Serviced by	Intelogic Trace, Inc.	Davox/CDC	Davox/CDC	Davox/CDC	Decision Data
COMMENTS					

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VENDOR AND MODEL	Decision Data 3781-01/21	Delta Data DD220T	Digital Equipment VT100 Series	Digital Equipment VT220	Digital Equipment VT240
TERMINAL DESCRIPTION					
Standalone or cluster	Either	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	8	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	5291, 3180	No	No	No	No
Teletype compatibility	No	Std.	Std.	Std.	Std.
Other compatibility	5251-11	DEC VT100/VT52; ANSI X3.64	VT100 Series	VT100/VT52, ANSI X3.64	VT100/52; Tek. 4010/4014; ANSI X3.64
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920/3,168	1,920/3,168	1,848/1,920/3,168	1,920, 3,168	1,920, 3,168
Memory capacity, no. char./lines/pages	512	—	—	—	—
Screen arrangement, lines x char./line	24x80/132 plus 3 status lines	24x80/132	24x80, 14/24x132	24x80/132	24x80/132
Screen area (diagonal), inches	15	14	12	12	12
Tilt/swivel screen	Std.	Std.	Opt.	Tilt std.	Tilt std.
Total displayable symbols	96, MNC-188	256	128 ASCII	256	256
Symbol formation	9x13/8x12	7x11 dot matrix	7x9 dot matrix	7x10 dot matrix	8x10 dot matrix
Character phosphor	P39 green, amber	P31 green	P4 white std.	White, green, or amber	White, green, or amber
Color capability	No	No	No	No	No
Graphics	No	No	Std. (VT125)	No	Std.
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std. (VT102); opt.	Std.	Std.
Blank	Std.	No	No	No	No
Bold	Std.	Std.	Std. (VT102/VT131)	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	Std.	Std.	Std.
Scroll	Std.	Smooth std.	Smooth/bidir.	Std.	Std.
Paging	Std.	No	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Std.	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	No	No	No
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	—	2 Std.	2 std.	2 std.	2 std.
Tabulation	Std.	Std.	Std. & program tabs	Std. & program tabs	Std. & program tabs
Character insert/delete	Std.	Std.	Std. (VT102/VT131)	Std.	Std.
Line insert/delete	Std.	Std.	Std. (VT102/VT131)	Std.	Std.
Erase	Std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter; 83 or 122 keys	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	—	ASCII	ASCII	ASCII	ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std.	18 std.	4 std.	20 std.	20 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, and speed	180 cps matrix	30-400 cps opt.	30-240 cps impact	30-240 cps impact	30-240 cps
Line printer, type, and speed	No	No	No	No	No
Composite video	No	Std.	Std.	Std.	Std.
Port for cust.-supplied devices	Opt.	Std.	Std.(VT102/125/131)	Std.	Std.
Other vendor-supplied devices	No	—	Graphics printer (VT125)	—	—
TRANSMISSION PARAMETERS					
Mode	Half-duplex	Full-duplex	Full-duplex	Full-duplex	Full-duplex
Technique	Synchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	BSC, SNA/SDLC	X ON/X OFF	ASCII/ANSI	ASCII/ANSI	ASCII/ANSI
Code	EBCDIC	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	Up to 1M	75-38,400	50-19,200	75-19,200	75-19,200
Format	Block	Character	Character	Character	Character
Multipoint operation	Std.	No	No	No	No
Terminal interface	Twinax	RS-232-C	RS-232-C std.; 20mA opt.	RS-232-C, 20mA, or RS-423	RS-232-C, 20mA, or RS-423
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,650	2,470-2,745	895-3,800	1,095	2,195
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	44	18-29	6	16
Annual prime-shift maintenance	115	480	—	—	—
Date of announcement	December 1985	November 1986	1978	November 1983	November 1983
Date of first production delivery	January 1986	December 1986	1978	November 1983	November 1983
Display units installed to date	12,000	—	Over 500,000		
Serviced by	Decision Data	Delta Data	Digital Equipment Corp.	Digital Equipment Corp.	Digital Equipment Corp.
COMMENTS	Opt. RS-232-C port; enhanced printer cap. to supt 5224/5225 text only emulation and 5256 emulation; French/Canadian version avail; 6512 and 6523 printer avail. from DDCC	TEMPEST, meets NACSIM 5100A	Models: VT100, VT101, VT102, VT125 (graphics), and VT131; ANSI-standard escape sequences	Plain language set-up menu for feature selection in English French, & German; multinational character set support; multiple language keyboards available; word processing keyboards available	Bit-mapped graphics version of VT220; two graphic protocols: Tektronix 4010/4014 & DEC ReGIS; 800 x 240 pixel screen resolution

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VENDOR AND MODEL	Digital Equipment VT241	Direct 820	Direct 825	Direct 828/1	Direct 831
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	Portable case	Portable case	Portable case	Portable case
IBM compatibility	No	No	No	No	No
Teletype compatibility	Std.	No	No	No	No
Other compatibility	VT100/52; Tek. 4010/ 4014; ANSI X3.64	HP2640, HP2645A, HP2622	HP2640, HP2645A, HP2622	HP2640, HP2645A, DEC VT100/VT52	DEC VT100/VT131/ VT52
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920, 3,168	1,920	1,920, 3,168	1,920, 3,168, 3,696	1,920, 3,168, 3,696
Memory capacity, no. char./lines/pages	—	4.2K	16K std.; 32K opt.	32K	16K std.; 32K opt.
Screen arrangement, lines x char./line	24x80/132	24x80	24x80/132	24x80/132, 28x132	24x80/132, 28x132
Screen area (diagonal), inches	13	12	12	12	12
Tilt/swivel screen	Tilt std.	No	No	No	No
Total displayable symbols	256	128 ASCII	128 ASCII	128 ASCII	128 ASCII
Symbol formation	8x10 dot matrix	7x11 dot matrix	7x11 dot matrix	7x11 dot matrix	7x11 dot matrix
Character phosphor	Color	P4 white	P4 white/P31 green	P4 white/P31 green	P4 white/P31 green
Color capability	4 colors std.	No	No	No	No
Graphics	Std.	—	Line drawing set	Line drawing set	Line drawing set
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	No	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	No	No	Std.	No
Scroll	Std.	Bidir.; 3 rates	Bidir.; 3 rates	Bidir.; 3 rates	Bidir.; 3 rates
Paging	No	Mult. pages std.	Mult. pages std.	Mult. pages std.	Mult. pages std.
Selectable cursor blinking	Std.	No	No	No	No
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	No	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	2 std.	Std.	Std.	Std.	Std.
Tabulation	Std. & program tabs	Fwd./back tab	Fwd./back tab	Fwd./back tab	Fwd./back tab
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	ASCII	96 ASCII	96 ASCII	96 ASCII	96 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	20 std.	8 std.	8 std.	8 or 16 std.	16 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	30-240 cps impact	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	Std.	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	—	No	Modem opt., Plot 10 graphics opt.	Modem opt., plot 10 graphics opt.	Modem opt., Plot 10 graphics opt.
TRANSMISSION PARAMETERS					
Mode	Full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII/ANSI	DC1/DC2; Eng. Ack.	DC1/DC2; Eng./Ack.	DC1/DC2; Eng./Ack.	X-on/X-off, DTR
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	75-19,200	50-19,200	50-19,200	50-19,200	50-19,200
Format	Character	Char./line/block	Char./line/block	Char./line/block	Char./line/block
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C, 20mA, or RS-423	RS-232-C	RS-232-C	RS-232-C	RS-232-C
Integral modem	No	No	Opt.	Opt.	Opt.
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	3,195	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	23	24	24	24	24
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	November 1983	April 1983	July 1981	March 1981	November 1982
Date of first production delivery	November 1983	June 1983	July 1981	April 1981	November 1982
Display units installed to date	—	—	—	—	—
Serviced by	Digital Equipment Corp.	Contact vendor	Contact vendor	Contact vendor	Contact vendor
COMMENTS	Color version of VT240		HP line-drawing set; fold-up keyboard; user-adjustable convenience features; upgrade to CP/M computer system opt.; screen-labeled function keys	Same as 825 plus downline loadable fonts	Full data entry check. & forms capa. downline load. char. fonts, line drawing set, fold-up kybd. All feat. & controls settable from kybd. & saveable in non-volatile RAM.

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VENDOR AND MODEL	Esprit Systems ESP 6110+	Esprit Systems OPUS 2	Esprit Systems ESP 6310	Esprit Systems ESP 6515	Esprit Systems Esprit III Color
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	No
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	Esprit II, ADDS R25 & View., LSI ADM 3A	WY-50, TVI 925/910, ADDS Viewpoint	TeleVideo 925, ADDS View., LSI ADM 3A/5	DEC VT100/VT220	TeleVideo 950
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	1,920	2,000	2000, 3168	1,920
Memory capacity, no. char./lines/pages	—	2 pages std., 4 opt	4 pages opt.	—	—
Screen arrangement, lines x char./line	24x80	26x80/132 plus 2 status lines	25x80	24x80/132 plus status line	24x80 plus status line
Screen area (diagonal), inches	14	14 flat	14	14	13
Tilt/swivel screen	Std.	Std.	Std.	Std.	Tilt std.
Total displayable symbols	128 ASCII	128 ASCII	128 ASCII + graph.	176 ASCII + graph.	128 ASCII + graph.
Symbol formation	7x11 dot matrix	7x11 dot matrix	7x11 dot matrix	7x11 dot matrix	7x11 dot matrix
Character phosphor	Green std., amber opt.	Green, amber, or white	Green std.; amber opt.	Green or amber	Green
Color capability	No	No	No	No	8 colors std.
Graphics	No	Line drawing	Std.	Std.	Std.
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	No
Blink	Std.	Std.	Std.	Std.	No
Blank	Std.	No	Std.	No	No
Bold	Std.	Std.	Std.	Std.	Dim std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	Std.	No
Scroll	Std.	Smooth std.	Smooth std.	Smooth (4 speeds)	No
Paging	No	No	4 opt.	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Std.	Both std.	Both std.
Protected format	Std.	No	Std.	No	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	No	No	2 std.	Std.
Tabulation	Fwd./back std.	Fwd./back std.	Fwd./back std.	Std.	Std.
Character insert/delete	Std.	No	Std.	No	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Line/screen std.	Std.	Std.	Std.	Line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	96 ASCII	128 ASCII	128 ASCII	176 ASCII	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	4/8 std.	16 std.	11/22 std.	18/36 std.	22 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Opt.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	—	—	—	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	TTY	ASCII	TTY	TTY	TTY
Code	ASCII	ASCII	ASCII	ASCII/ANSI	ASCII
Speed, bits/second	50-19,200	50-38.4K	50-19,200	75-38,400	50-19,200
Format	Char./line/block	Character	Char./line/block	Character	Char./block
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C std., RS-422, 20mA opt.	RS-232-C std., RS-422, 20mA opt.	RS-232-C std.; 20mA, RS-422 opt.	RS-232-C std.; 20mA, RS-422 opt.	RS-232-C or 20mA
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	395	549	695	695	995
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	July 1984	August 1986	November 1983	5/85	May 1983
Date of first production delivery	August 1984	August 1986	December 1983	8/85	July 1983
Display units installed to date	20,000		60,000	1,000	—
Serviced by	Esprit Depot Repair, TRW	Esprit Depot Repair, TRW	Esprit Depot Repair, TRW	Esprit Depot Repair, TRW	Esprit, TRW
COMMENTS			Upgradeable to standalone PC		

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VENDOR AND MODEL	Falco 500	Falco 542	Falco 5220	Falco 5500	General Business Technology 7700DS
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	IBM S/34, 36, 38
Teletype compatibility	Std.	—	—	—	No
Other compatibility	See comments; ANSI X3.64	LSI ADM 42/5/3/2/1, DEC VT220/100/52	DEC VT220/100/52 ANSI X3.64	ASCII, see comments	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920-5,016	5,808	5,808	5,808	1,920
Memory capacity, no. char./lines/pages	2 pp std.; 4 opt.	2 pp std.; 4 opt.	2 pp. std.; 4 opt.	2 pp. std.; 4 opt.	391 characters
Screen arrangement, lines x char./line	24/38x80/132 plus status line	24/44x80/132 plus status line	24/44x80/132 plus status line	24/44x80/132 plus status line	25x80
Screen area (diagonal), inches	14	14	14	14	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	128 ASCII 512 total	128 ASCII 512 total	128 ASCII 512 total	128 ASCII 512 total	151
Symbol formation	10x10/15 cell	9x12 in 10x16 cell	9x12 char.matrix	9x12 char.matrix	7x9 dot matrix
Character phosphor	P192 white std. P31 green, P134 amber	P31 green, P134 amber, P194 white	P31 green, P134 amber, P192 white	P31 green, P134 amber, P192 white	P31 green or amber
Color capability	No	No	No	No	No
Graphics	No	No	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	No	No	No	No	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	Std.	Std.	Std.	No
Scroll	Up/down std.	Up/down std.	Std.	Std.	Std.
Paging	2 std.; 4 opt.	—	—	—	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Std.	Std.	Std.	Std.	Std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	6 windows	2 windows	2 windows	2 windows	No
Tabulation	Std.	Std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Std.	Std.	Std.	Std.	—
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	IBM 5251-compatible (typewriter)
Character/code set	ASCII	ASCII	ASCII	ASCII	IBM 5291 set
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	15 std. (64 functions)	16 std. (64 functions)	13 std. (52 functions)	16 std. (64 functions)	24 std.
Numeric keypad	Std.	Std.	Std.	Std.	No
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	Matrix line & laser
Line printer, type, and speed	No	No	No	No	—
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Opt.
Other vendor-supplied devices	—	—	—	—	Opt. mouse
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Synchronous
Communications protocol	ANSI X3.64	ASCII/ANSI X3.64	ANSI X3.64	ASCII ANSI X3.64	BSC, SNA/SDLC
Code	ASCII	ASCII	ASCII	ASCII	EBCDIC
Speed, bits/second	Up to 38,400	Up to 38,400	Up to 38,400	Up to 38,400	1M
Format	Char./block	Char./line/block	Char./line/block	Char./line/block	Char./line/block
Multipoint operation	No	Std.	No	No	Std.
Terminal interface	RS-232-C std. & RS-422	Current loop/ RS-232-C	RS-232-C & RS-422 std.	RS-232-C & RS-422 std.	Twinax (IBM 5251)
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	795	1,125	595	495	1,450
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	105
Date of announcement	November 1986	October 1986	March 1986	September 1986	—
Date of first production delivery	November 1986	October 1986	March 1986	September 1986	—
Display units installed to date	—	—	—	—	—
Serviced by	Third party, factory	Factory, 3rd party	Factory, 3rd party	Factory, 3rd party	ITT Servcom
COMMENTS		Compatible with: Digital VT220/ VT100/VT52, ADDS Viewpoint, Wyse WY-50, TeleVideo 955,950,925, 920, &910, Hazeltine 1500, Falco (PC/AT)			Compatible with: Wy-50, TVI 955/950/ 925/920/910, IBM 3101, ADDS VP, Hazeltine 1500, DG 200, Falco (PC/AT)	User-programmable up to 224 characters

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VENDOR AND MODEL	General Business Technology 7710DS	General Digital VuePoint	General Digital VuePoint II	Harris H178-02	Harris H180-14/15
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Cluster	Cluster
Maximum displays/controller	—	—	—	32	32
Transportability	No	Portable case	No	No	No
IBM compatibility	IBM S/34, /36, /38	Special order	Special order	3178	3180
Teletype compatibility	No	Opt.	Opt.	No	No
Other compatibility	—	—	—	—	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	480	480	1,920	1,920-3,564
Memory capacity, no. char./lines/pages	391 characters	128K opt.	143K opt.	1 page	—
Screen arrangement, lines x char./line	25x80	12x40	12x40	24x80 plus status line	24/32/43x80, 27x132 plus status line
Screen area (diagonal), inches	14	10	10	12	14 or 15
Tilt/swivel screen	Std.	No	No	Std.	Std.
Total displayable symbols	151	96 ASCII	96 ASCII	96 EBCDIC	96 EBCDIC
Symbol formation	7x9 dot matrix	5x7 dot matrix	5x7 dot matrix	9x14 dot matrix	12x16/13/10, 9x12
Character phosphor	P31 green or amber	Gas plasma panel	Orange or green gas plasma	P39/P42 green, or PC166 amber	P39/P42 green or PC166 amber
Color capability	No	No	No	No	No
Graphics	No	No (or limited)	No (or limited)	No	No
Programmable field/char. highlighting via:					
Underline	Std.	No	No	No	Std.
Blink	Std.	Std.	Std.	No	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	No	No	No	Std.
Double size	No	No	No	No	No
Scroll	Std.	Up std.	Up std.	No	Up/down std.
Paging	No	3 std.; to 51 opt.	3 std., up to 143	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Std.	Addressable only	Addressable only	Std.	Std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	No	No	Std.	Std.
Split screen/windows	No	No	No	No	No
Tabulation	Std.	Fwd. std.	Forward std.	Std.	Std.
Character insert/delete	Std.	No	No	Std.	Std.
Line insert/delete	Std.	No	No	Std.	Std.
Erase	—	Char./line/screen/ partial screen std.	Char./line/screen/ partial screen std.	Character std.	Character std.
KEYBOARD PARAMETERS					
Style	IBM 3179 (typewriter)	Opt. (Typewriter)	Opt.	Typewriter, data entry	Typewriter data entry
Character/code set	IBM 3179 set	128 ASCII	128 ASCII	96 EBCDIC	96/EBCDIC/APL
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std.	Via touchscreen	Via touchscreen	24 std.	24 Std.
Numeric keypad	Std.	Via touchscreen	Via touchscreen	Opt.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	Matrix, barcode	No	No	Impact 150 cps	Impact, 150 cps
Line printer, type, and speed	—	No	No	—	—
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Opt.	Std.; 2 I/O ports	Std., 2 I/O ports	Std.	Std.
Other vendor-supplied devices	Opt. mouse	Audible alarm std.	Audible alarm std., self-test diagnostics	Light pen	No
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Full-duplex	Full-duplex	Half-duplex	Half-duplex
Technique	Synchronous	Asynchronous	Asynchronous	Synchronous	Synchronous
Communications protocol	BSC, SNA/SDLC	—	—	BSC, SNA/SDLC	BSC, SNA/SDLC
Code	EBCDIC	ASCII	ASCII	EBCDIC	EBCDIC
Speed, bits/second	1M	300-19,200	300-19,200	2.3M	2.3M
Format	Char./line/block	Character	Character	Character	Character
Multipoint operation	Std.	Opt.	Opt.	Std.	Std.
Terminal interface	Twinax (direct or remote)	RS-232-C or 20mA	RS-232-C, RS-422/3, RS-485, 20mA, TTL	Coaxial	Coaxial
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,540	3,920	2,930	1,075 & up	1,795 & up
Controller, purchase	included	—	—	—	—
Monthly prime-shift maintenance	—	—	—	12	14
Annual prime-shift maintenance	105	—	—	134	156
Date of announcement	January 1987	September 1979	January 1984	July 1985	March 1985
Date of first production delivery	January 1987	—	January 1984	November 1985	November 1985
Display units installed to date	—	—	—	—	—
Serviced by	ITT Servcom	General Digital	General Digital	Harris	Harris
COMMENTS	Optional printer modules allow the attachment of a system addressable printer	The VuePoint is a touch-input terminal with optional keyboard & printer; screen editor available.	OEM targeted; options include expansion memory, additional intelligence speech outputs, screen editor	Part of Challenger Information Display System; attaches to Harris HX74 control units & equivalent IBM controllers	Part of Challenger Information Display System; attaches to Harris H174 control units & equivalent IBM controllers

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VENDOR AND MODEL	Harris H179-01	Harris H181-01	Harris H178-22	Hewlett-Packard 2392A	Hewlett-Packard 2393A
TERMINAL DESCRIPTION					
Standalone or cluster	Cluster	Cluster	Cluster	Standalone	Standalone
Maximum displays/controller	32	32	32	—	—
Transportability	No	No	No	No	No
IBM compatibility	3179	3180/3179	3178	No	No
Teletype compatibility	No	No	No	Std.	Std.
Other compatibility	—	—	—	ANSI X3.64	Tektronix 4010/4014 ANSI X3.64
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	1,920-3,564	1,920	1,920	1,920
Memory capacity, no. char./lines/pages	1 page	24, 32, 43, 27	24 lines & status	4 pages std., 8 opt	12 pages
Screen arrangement, lines x char./line	24x80 plus status line	24/32/43x80; 27x132 plus status line	24x80 & status line	24x80	24x80
Screen area (diagonal), inches	14	14	12	12	12
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	96 EBCDIC	96 EBCIDC	96 EBCDIC	128 ASCII	128 ASCII
Symbol formation	9x14 dot matrix	12x15/13/10/14	9x14 dot matrix	9x14 dot matrix	8x14 dot matrix
Character phosphor	Color	Color	P39/P42 green; PC166 amber	P31 green	P31 green std.
Color capability	7 colors std.	7 colors std.	No	No	No
Graphics	No	No	No	No	Std.
Programmable field/char. highlighting via:					
Underline	Std.	Std.	No	Std.	Std.
Blink	Std.	Std.	No	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	No	Std.
Reverse	Std.	Std.	No	Std.	Std.
Double size	No	No	No	Std.	Std.
Scroll	No	No	No	Up/down smooth std.	Up/down, smooth
Paging	No	No	No	4 std., 8 opt.	12 std.
Selectable cursor blinking	Std.	Std.	Std.	No	Std.
Addressable/readable cursor	Std.	Std.	Std.	Both std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	No	No	No	No
Tabulation	Std.	Std.	Std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Character std.	Std.	Std.	Std.	Std.
Erase	Std.	Character std.	Character std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter, data entry, APL	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	96 EBCDIC/APL	96 EBCDIC	96 EBCDIC	128 ASCII	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std.	24 std.	24 std.	8 std.	12 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	Impact, 160 cps	Impact, 150 cps	Impact, 150 cps	RS-232-C or Centr.	RS-232-C, Centr.
Line printer, type, and speed	—	—	—	No	No
Composite video	No	No	No	No	Yes
Port for cust.-supplied devices	Std.	Std.	Std.	Opt.	Opt.
Other vendor-supplied devices	Light pen	No	Light pen	—	Mouse, touch screen tablet, bar code reader
TRANSMISSION PARAMETERS					
Mode	Half-duplex	Half-duplex	Half-duplex	Full-duplex	Full-duplex
Technique	Synchronous	Synchronous	Synchronous	Asynchronous	Asynchronous
Communications protocol	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC	ASCII	ASCII
Code	EBCDIC	EBCDIC	EBCDIC	ASCII	ASCII
Speed, bits/second	2.3M	2.3M	2.3M	110-19,200	110-19,200
Format	Character	Character	Character	Char./line/block	Char./line/block
Multipoint operation	Std.	Std.	Std.	No	No
Terminal interface	Coaxial	Coaxial	Coaxial	RS-232-C	RS-232-C
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,895 & up	2,095 & up	1,175 & up	1,375	2,095
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	14	14	12	—	—
Annual prime-shift maintenance	156	156	134	—	—
Date of announcement	March 1985	September 1986	January 1986	June 1984	June 1985
Date of first production delivery	December 1985	October 1986	January 1986	June 1984	June 1985
Display units installed to date	—	—	—		
Serviced by	Harris	Harris	Harris	Hewlett-Packard	Hewlett-Packard
COMMENTS	Part of Challenger Information Display System; attaches to Harris H174 control units & equivalent IBM controllers	Part of Challenger Information Display System; attaches to HX74 control units and equivalent IBM controllers		Compact display terminal designed for a wide range of applications	Graphics terminal; optional touch-screen, bar code reader, tablet, mouse

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VENDOR AND MODEL	Hewlett-Packard 2394A	Hewlett-Packard 2397A	Honeywell VIP 7201	Honeywell HDS 7101/7102	Honeywell HDS 7302/7304
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	No
Teletype compatibility	Std.	Std.	Std.	No	No
Other compatibility	ANSI X3.64	Tektronix 4010/4014 ANSI X3.64	Honeywell VIP	ADDS Viewpoint, Wyse WY-50, LSI	Honeywell VIP
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	1,920	1,920	2,000	2,000
Memory capacity, no. char./lines/pages	8 pages	12 pages	80/24/1	80/25/1	80/25/1
Screen arrangement, lines x char./line	24x80	24x80	24x80	25x80	25x80
Screen area (diagonal), inches	12	12	12	14	12
Tilt/swivel screen	Std.	Std.	Tilt opt.	Opt.	Std.
Total displayable symbols	128 ASCII	128 ASCII	96 ASCII/26 special	128	190 ASCII/30 specia
Symbol formation	9x14 dot matrix	8x14 dot matrix	7x11 dot matrix	10x14 dot matrix	9x12
Character phosphor	P31 green std.	Color	P31 green std.	green or amber	Green or amber
Color capability	No	8 colors/from 64	No	No	No
Graphics	No	Std.	No	Line graphics std.	Line graphics std.
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	No	Std.	Std.
Bold	No	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	Std.	No	Std.	No
Scroll	Up/down, smooth	Up/down, smooth	Up std.	Up/smooth std.	Up/horizontal std.
Paging	8 std.	12 std.	No	No	No
Selectable cursor blinking	No	Std.	Std.	Std.	No
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	—	No	No
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	No	No	No	No
Tabulation	Fwd./back std.	Fwd./back std.	Std.	Std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Char./line/screen std.	Char./line/screen std.	Std.	Std.	Line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter (multi-func., low-profile)
Character/code set	128 ASCII	128 ASCII	128 ASCII	128 ASCII	190 ASCII/30 spec.
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	8 std.	12 std.	7 std.	10 std.	12 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	RS-232-C or Centr.	RS-232-C, Centr.	400 cps impact	Dot matrix impact	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	Yes	No	No	No
Port for cust.-supplied devices	Opt.	Opt.	Std.	Std.	No
Other vendor-supplied devices	—	Mouse, touch screen tablet, bar code	—	No	No
TRANSMISSION PARAMETERS					
Mode	Full-duplex	Full-duplex	Full-duplex	Full-duplex	Full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII	ASCII	ASCII 7-bit	Xon/Xoff/DTR/RTS	Honeywell VIP
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	110-19,200	110-19,200	300-19,200	300-19,200	300-19,200
Format	Char./line/block	Char./line/block	Char./line/block	Character	Character
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C	RS-232-C	RS-232-C or RS-422A	RS-232-C or RS-422A	RS-232-C or RS-422
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,875	3,295	795	525	1,295
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	20	—	—
Annual prime-shift maintenance	—	—	See comments	85	110
Date of announcement	June 1985	September 1985	December 1982	September 1986	October 1985
Date of first production delivery	June 1985	September 1985	February 1983	January 1987	November 1985
Display units installed to date	—	—	—	—	5,000 plus
Serviced by	Hewlett-Packard	Hewlett-Packard	Honeywell	Honeywell	Honeywell
COMMENTS	Data entry terminal	Color graphics terminal; optional touchscreen, bar code reader, tablet, mouse	Honeywell Customer Assistance Maintenance Program (CAMP) available at $80/year	Honeywell Customer Assistance Maintenance Program (CAMP) available at $51/year	Multi-function keyboard w/special overlays; eligible for Customer Assisted Maintenance Program (CAMP)

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VENDOR AND MODEL	Honeywell HDS 7403/7404	Honeywell HDS 7807/7808	Human Designed Systems HDS200	Human Designed Systems HDS200G	Human Designed Systems HDS201
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	No
Teletype compatibility	No	No	Std.	Std.	Std.
Other compatibility	Digital VT220/100/52	Honeywell VIP	DEC VT100	DEC VT100, Tektronix 4010/4014	DEC VT100
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,000-10,560	2,000, 10,560	1,920, 3,168	1,920, 3,168	1,920, 3,168
Memory capacity, no. char./lines/pages	80/25/1, 132/25/1	3 pages	4 pp. std.; 8 opt.	4 pp. std.; 8 opt.	8 pages std.
Screen arrangement, lines x char./line	25x80, 25x132	24x80, 24x132, plus status line	24x80/132	24x80/132	24x80/132
Screen area (diagonal), inches	14	14	15	15	15
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	190 ASCII/30 spec.	190 ASCII/30 spec.	128 ASCII/512 spec.	128 ASCII/512 spec.	128 ASCII/APL/spec.
Symbol formation	10x10 (80 col.)	10x14, 6x14	9x14 dot matrix	9x14 dot matrix	9x14 dot matrix
Character phosphor	Green or amber	Green or amber	PLA amber std.; P31 green opt.	PLA amber std.; P31 green opt.	PLA amber std.; P31 green opt.
Color capability	No	No	No	No	No
Graphics	Line graphics std.	Line graphics std.	Opt.	Std.	Opt.
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	Std.	Std.	Std.	Std.
Scroll	Up/down std.	Up/down/smth./jump	Up/down, smooth	Up/down, smooth	Up/down, smooth
Paging	No	3 std.	4 std.; 8 opt.	4 std.; 8 opt.	8 std.
Selectable cursor blinking	Std.	No	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	No	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	5 partitions std.	4+4 viewports std.	4+4 viewports std.	4+4 viewports std.
Tabulation	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Std.	Std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter (multi-function)	Typewriter	Typewriter	Typewriter
Character/code set	190 ASCII	190 ASCII/30 spec.	128 ASCII	128 ASCII	APL
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	14 std.	12 std.	55 (110) std.	55 (110) std.	55 (110) std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	Dot matrix impact	400 cps impact	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	Std.	Opt.	Opt.	Opt.
Port for cust.-supplied devices	Std.	No	Std.	Std.	Std.
Other vendor-supplied devices	No	No	Shared printer interface opt.	Shared printer interface, joystick opt.	Shared printer interface opt.
TRANSMISSION PARAMETERS					
Mode	Full duplex	Full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Async./sync.	Asynchronous	Asynchronous	Asynchronous
Communications protocol	Xon/Xoff/DTR/RTS	Honeywell VIP	RS-232-C, XON/XOFF	RS-232-C, XON/XOFF	RS-232-C, XON/XOFF
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	300-19,200	300-9,600	75-19,200	75-19,200	75-19,200
Format	Char., block std.	Char./line/block	Char./block	Char./block	Char./block
Multipoint operation	No	Std.	No	No	No
Terminal interface	RS-232-C or RS-422	RS-232-C or RS-422A	RS-232-C std.; 20mA opt.	RS-232-C std.; 20mA opt.	RS-232-C std.; 20mA opt.
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	750	1,200	995	1,295	1,295
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	19	24	19
Annual prime-shift maintenance	95	100	115	150	115
Date of announcement	September 1986	November 1986	April 1985	April 1985	April 1985
Date of first production delivery	January 1987	December 1986	April 1985	April 1985	April 1985
Display units installed to date	—	—	—	—	—
Serviced by	Honeywell	Honeywell	HDS service	HDS service	HDS service
COMMENTS	Honeywell Customer Assisted Maintenance Program (CAMP) available at $57/year	ANSI X3.64 mode std eligible for customer assisted maintenance program (CAMP)	Non-volatile function keys & configuration; simultaneous communication w/multiple hosts; user defined windows (4) & viewports (4) 2-3 bidir. comm. ports; downloadable RAM character sets	Non-volatile function keys & configuration; simultaneous communication w/multiple hosts; user defined windows (4) & viewports (4) 2-3 bidir. comm. ports; downloadable RAM character sets	Non-volatile function keys & configuration; simultaneous communication w/multiple hosts; user defined windows (4) & viewports (4) 2-3 bidir. comm. ports; downloadable RAM character sets

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VENDOR AND MODEL	Human Designed Systems HDS201G	Icot 700	Icot 701	Informer 101	Informer 201/203/205
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone/cluster	Standalone/cluster	Standalone	Either
Maximum displays/controller	—	—	—	—	1(VT100);32(3276)
Transportability	No	No	No	No	No
IBM compatibility	No	3278	3278	3101	IBM 3276/3278 BSC
Teletype compatibility	Std.	No	No	Std.	No
Other compatibility	DEC VT100, Tektronix 4010/4014	DEC VT100	DEC VT100	—	DEC VT100, IBM 3101
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920, 3,168	1,920, 3,696	560-3,696	1920	1,920
Memory capacity, no. char./lines/pages	8 pages std.	—	—	80/24/1	4K
Screen arrangement, lines x char./line	24x80/132	24x80, 28x132	14x40, 14/25/33/44x 80, 17/31x64, 28x132	24x80	24x80 plus status line
Screen area (diagonal), inches	15	12	14	9	11
Tilt/swivel screen	Std.	No	No	Std.	Tilt std.
Total displayable symbols	128 ASCII/APL/spec.	87 ASCII	87 ASCII	128 ASCII	ASCII (DEC)
Symbol formation	9x14 dot matrix	Multiple	Multiple	7x9 dot matrix	8x10 dot matrix
Character phosphor	PLA amber std.; P31 green opt.	P31 green	P31 green	P4 white std.; P31 green opt.	P31 green std.
Color capability	No	No	No	No	No
Graphics	Std.	—	—	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	No	No	No	Std. (DEC only)
Scroll	Up/down, smooth	No	No	Up/down std.	Up/down (DEC)
Paging	8 std.	No	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Addressable only	Addressable only	Both std.	Std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	4+4 viewports std.	No	No	No	Std.
Tabulation	Fwd./back std.	Std.	Std.	Fwd./back std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	No
Erase	Char./line/screen std.	Std.	Std.	Char./line/screen std.	Std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter (IBM 3278-style)	Typewriter	Data entry	Typewriter (201); data entry
Character/code set	APL	—	—	128 ASCII	ASCII (DEC); EBCDIC
Detachability	Std.	Std.	Std.	No	Std. on 203/205
Program function keys	55 (110) std.	Std.	Std.	8 std.	18 (DEC); 24 (IBM)
Numeric keypad	Std.	Std.	Std.	No	Std./some models
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	Std.	No	120 cps
Line printer, type, and speed	No	No	—	No	No
Composite video	Opt.	Std.	Std.	Std.	No
Port for cust.-supplied devices	Std.	Opt.	Opt.	Opt.	Std.
Other vendor-supplied devices	Shared printer interface, joystick opt.	—	—	—	Light pen
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Full-duplex	Full-duplex	Half/full-duplex	Full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Async./sync.
Communications protocol	RS-232-C, XON/XOFF	Async, BSC, SNA/SDLC	Async, BSC, SNA/SDLC	ASCII	ANSI (DEC); BSC
Code	ASCII	ASCII	ASCII	ASCII	ASCII (DEC); EBCDIC
Speed, bits/second	75-19,200	110-19,200	110-19,200	50-19,200	38.4K (DEC); 19.2K
Format	Char./block	Character	Character	Character	Char. (DEC); block
Multipoint operation	No	Std.	Std.	Opt.	Std.(IBM only)
Terminal interface	RS-232-C std.; 20mA opt.	RS-232-C or RS-422	RS-232-C or RS-422	RS-232-C or 20mA	RS-232-C (DEC); coaxial (IBM)
Integral modem	No	No	No	No	Opt.
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,595	1,095	1,750	690	1,090-3,900
Controller, purchase	—	5,800-9,800	5,800-9,800	—	4,000 (IBM only)
Monthly prime-shift maintenance	24	—	—	—	Contact vendor
Annual prime-shift maintenance	150	—	—	—	
Date of announcement	April 1985	1982	1982	—	October 1982
Date of first production delivery	April 1985	1982	1982	—	January 1983
Display units installed to date	—	—	—	—	
Serviced by	HDS service	Icot	Icot	Informer	Informer
COMMENTS	Non-volatile function keys & configuration; simultaneous communication w/multiple hosts; user defined windows (4) & viewports (4) 2-3 bidir. comm. ports; downloadable RAM character sets	Built-in keypad calculator, alternate application sessions	Built-in keypad calculator, alternate application sessions		Models available with Informer VT100, 376, or 378 software packages

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VENDOR AND MODEL	Informer 207	Informer 376	Informer 378	Informer 102	Informer 208
TERMINAL DESCRIPTION					
Standalone or cluster	Either	Standalone	Cluster	Either	Either
Maximum displays/controller	1; 32; 8	—	8	32	32
Transportability	Portable	No	No	Portable	Portable
IBM compatibility	IBM 3276/3278	3276	3278	No	3179/3274-51C
Teletype compatibility	No	No	No	No	No
Other compatibility	DEC VT100, IBM 3101	—	—	DEC	No
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	1,920	1,920	1,920	1,920
Memory capacity, no. char./lines/pages	4K	80/24/1	80/24/1	4K	4K
Screen arrangement, lines x char./line	24x80 plus status line	24x80 plus status line	24x80 plus status line	24x80/132	24x80 plus status line
Screen area (diagonal), inches	11	9 std., 12 opt.	9 std., 12 opt.	11	11
Tilt/swivel screen	Tilt std.	Std.	Std.	Tilt std.	Tilt std.
Total displayable symbols	ASCII; full IBM set	96	96	ASCII; full IBM set	ASCII; full IBM set
Symbol formation	8x10 dot matrix	7x9 dot matrix	7x9 dot matrix	8x10 dot matrix	7x11 dot matrix
Character phosphor	P31 green std.	P31 green std., P4 white opt.	P31 green std.; P4 white opt.	P31 green std.	4 color
Color capability	No	No	No	No	No
Graphics	No	No	No	No	—
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std. (DEC only)	No	No	Yes	No
Scroll	Up/down std. (DEC)	No	No	Std.	No
Paging	No	No	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Std.	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	Std.	No	No	Std.	No
Tabulation	Std.	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	No	No	No	No	No
Erase	No	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Data entry	Data entry	Typewriter	Data entry
Character/code set	ASCII(DEC); EBCDIC	96 EBCDIC	96 EBCDIC	ASCII (VT102)	96 EBCDIC
Detachability	Std.	Opt.	Opt.	Opt.	Std.
Program function keys	18 (DEC); 24 (IBM)	24 std.	24 std.	24 std.	24 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	120 cps	30 cps dot matrix	30 cps dot matrix	120 cps	120 cps
Line printer, type, and speed	No	No	No	No	No
Composite video	No	Std.	Std.	No	No
Port for cust.-supplied devices	Std.	Opt.	Opt.	Std.	No
Other vendor-supplied devices	Light pen	Light pen	Light pen	Light pen	No
TRANSMISSION PARAMETERS					
Mode	Full-duplex	Half/full-duplex	Half/full-duplex	Full-duplex	Half/full-duplex
Technique	Async./sync.	Synchronous	Synchronous	Asynchronous	Asynchronous
Communications protocol	ANSI; BSC	BSC	BSC	ANSI	SNA,BSC
Code	ASCII (DEC); EBCDIC	EBCDIC	EBCDIC	ASCII	EBCDIC
Speed, bits/second	38.4K (DEC); 19.2K	50-9600	50-9600	19.2K	19.2K
Format	Char. (DEC); block	Block	Block	Character	Block
Multipoint operation	Std.(IBM only)	Std.	Std.	No	Std.
Terminal interface	RS-232-C (DEC); coaxial (IBM only)	RS-232-C	RS-232-C	RS-232-C	RS-232-C
Integral modem	Opt.	Opt.	Opt.	Opt.	Opt.
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,390-3,850	1,950-2,350	1,700-2,050	1,390	2,995
Controller, purchase	4,000 (IBM only)	—	5,000-5,400	—	—
Monthly prime-shift maintenance	Contact vendor	—	—	Contact vendor	Contact vendor
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	October 1982	—	—	January 1986	January 1987
Date of first production delivery	January 1983	—	—	January 1986	January 1987
Display units installed to date	—	—	—	—	—
Serviced by	Informer	Informer	Informer	Informer	Informer
COMMENTS	Available with Informer VT100, 376, or 378 software packages	Models I, D, and S, and 201-205, including executive inquiry with hide-away keyboard	Models I, D, and S, and 201-205, including executive inquiry with hide-away keyboard; all models used with 374 controller		

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VENDOR AND MODEL	Informer 251	Intecolor E 8001 G/H/R	Intecolor ColorTrend	Intecolor ColorTrend 4100 Series	Intelligent Information Systems IS-378
TERMINAL DESCRIPTION					
Standalone or cluster	Cluster	Standalone	Standalone	Standalone	Cluster
Maximum displays/controller	7	—	—	—	Up to 32
Transportability	Portable	No	No	No	No
IBM compatibility	3179/3274-51C	3275 opt.	No	No	3178
Teletype compatibility	No	Std.	Std.	Std.	No
Other compatibility	No	No	DEC VT100, ANSI X3.64	Tektronix 4105A, DEC VT100	No
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	3,840	1,920	1,920, 3,960	1,920
Memory capacity, no. char./lines/pages	4K	80/48/2	80/24/2	420x1328	2KB
Screen arrangement, lines x char./line	24x80 plus status line	48x80	24x80	Up to 132x30	24x80
Screen area (diagonal), inches	11	19	14	14	14
Tilt/swivel screen	Tilt std.	No	No	Tilt std.	Both std.
Total displayable symbols	ASCII; full IBM set	64 ASCII/64 ISA	64 ASCII/64 ISA	1,024	256
Symbol formation	7x11 dot matrix	5x7 (G); 6x8 (H&R)	5x7 dot matrix	5x7 dot matrix	7x9
Character phosphor	4 color	Color	Color	P22	P39
Color capability	4 color std.	8 colors	8 colors	16 of 64 colors	No
Graphics	No	Std.	Std.	Std.	Semi-graphic
Programmable field/char. highlighting via:					
Underline	Std.	No	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	No
Blank	Std.	No	Std.	Std.	No
Bold	Std.	No	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	Std.	No	Std.	No
Scroll	No	Up std.	Up/down std.	Std.	No
Paging	No	2 opt.	2 std.	14 pages std.	No
Selectable cursor blinking	Std.	No	No	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Addressable only	Both std.
Protected format	Std.	Opt.	No	Std.	Std.
Partial screen transmit	Std.	No	No	Std.	Std.
Split screen/windows	No	No	Std.	Std.	No
Tabulation	Fwd./back std.	Fwd. std.	Fwd./back std.	Fwd/back std.	Fwd/back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	No	Std.	Std.	Std.	Std.
Erase	Char./line/screen std.	Char. std.	Char./line/page std.	Character and line	Std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	All as in IBM
Character/code set	96 EBCDIC	64 ASCII	64 ASCII	64 ASCII	Up to 122 codes
Detachability	Std.	Std.	No	Std.	Std.
Program function keys	12 std.	16 std.	12 std.; 72 functions	48+ (all keyboards except 4)	24 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	120 cps	55 cps impact opt.	55 cps impact opt.	Supported	Parallel opt.
Line printer, type, and speed	No	No	No	Centronics int.	No
Composite video	No	No	No	Opt.	Opt.
Port for cust.-supplied devices	No	RS-232-C	RS-232-C; 20mA opt.	Std.	Opt.
Other vendor-supplied devices	Light pen	Light pen (H&R), digitizer (R), plotter (R) all optional	Light pen opt.	Mouse	Bar code, MSR opt.
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half-duplex
Technique	Asynchronous	Async.; sync. opt.	Asynchronous	Asynchronous	Synchronous
Communications protocol	ANSI	ASCII	ANSI X3.64	ASCII	IBM 3270 coax
Code	EBCDIC	ASCII	ASCII, ANSI	ASCII	IBM 3270
Speed, bits/second	19.2K	Up to 9600	Up to 19,200	Up to 38,400	2.5M
Format	Character	Character	Character	Character	All
Multipoint operation	Std.	No	No	No	Std.
Terminal interface	RS-232-C	RS-232-C std.; 20 mA opt.	RS-232-C or 20mA	RS-232-C	Coax
Integral modem	Opt.	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	2,190	2,745/3,175/3,975	1,295	1,995	—
Controller, purchase	2,545 (Twinax)	—	—	—	—
Monthly prime-shift maintenance	Contact vendor	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	June 1986	1975/1979/1982	1984	May 1986	September 1983
Date of first production delivery	June 1986	—	1984	August 1986	October 1983
Display units installed to date	—	—	—	—	15,000
Serviced by	Informer	Intecolor rep., service centers	Intecolor rep., service centers	Service centers	IIS
COMMENTS		Resolution—160 H x 192 V; 480 H x 384 V (H&R); low resolution character cell graphics mode			

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VENDOR AND MODEL	Intelligent Information Systems IS-379	Intelligent Information Systems IS-380-1	Intelligent Information Systems IS-380-2	Intelligent Information Systems IS-391	Intelligent Information Systems IS-396
TERMINAL DESCRIPTION					
Standalone or cluster	Cluster	Cluster	Cluster	Cluster	Cluster
Maximum displays/controller	Up to 32	Up to 32	Up to 32	Up to 32	Up to 32
Transportability	No	No	No	No	No
IBM compatibility	3179	3180-1	3180-2	3191	3196
Teletype compatibility	No	No	No	No	No
Other compatibility	No	No	No	No	No
DISPLAY PARAMETERS					
Display capacity, no. of char.	Up to 2,560	Up to 3,564	Up to 3,564	1,920	1,920
Memory capacity, no. char./lines/pages	4KB	8KB	8KB	2KB	8KB
Screen arrangement, lines x char./line	Up to 32x80	Up to 43x80, 27x132	24x80, 27x132	24x80	24x80
Screen area (diagonal), inches	14	15	15	14	14
Tilt/swivel screen	Both std.	Both std.	Both std.	Both std.	Both std.
Total displayable symbols	256 + APL	256 + APL	256	256	256
Symbol formation	7x9	7x9	7x9	7x9 dot matrix	7x9
Character phosphor	Color	P39	P39	P39	P39
Color capability	7 colors	No	No	No	No
Graphics	Semi-graphic, APL	Semi-graphic, APL	Semi-graphic	Semi-graphic	Semi-graphic
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	No	Std.
Blink	Std.	Std.	Std.	No	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	No	Std.
Double size	No	No	No	No	No
Scroll	No	Up/down std.	Up/down std.	No	No
Paging	No	4 pages std.	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	No	Std.	No
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	Std.	Std.	Std.	No	Std.
Tabulation	Fwd/back std.	Fwd/back std.	Fwd/back std.	Fwd/back std.	Fwd/back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Std.	Std.	Std.	Std.	Std.
KEYBOARD PARAMETERS					
Style	All as in IBM	All as in IBM	All as in IBM	All as in IBM	All as in IBM
Character/code set	Up to 122 codes	Up to 122 codes	Up to 122 codes	Up to 122 codes	Up to 122 codes
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std.	24 std.	24 std.	24 std.	24 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	Parallel opt.	Parallel opt.	Parallel opt.	Parallel opt.	Parallel opt.
Line printer, type, and speed	Opt.	No	Opt.	No	Opt.
Composite video	Opt.	Opt.	Opt.	Opt.	Opt.
Port for cust.-supplied devices	Opt.	Opt.	Opt.	Opt.	Opt.
Other vendor-supplied devices	Bar code, MSR opt.	Bar code, MSR opt.	Bar code, MSR opt.	Bar code, MSR opt.	Bar code, MSR opt.
TRANSMISSION PARAMETERS					
Mode	Half-duplex	Half-duplex	Half-duplex	Half-duplex	Half-duplex
Technique	Synchronous	Synchronous	Synchronous	Synchronous	Synchronous
Communications protocol	IBM 3270 coax	IBM 3270 coax	IBM 5250 coax	IBM 3270 coax	IBM 5250 coax
Code	IBM 3279	IBM 3270	IBM 5250	IBM 3270	IBM 5250
Speed, bits/second	2.5M	2.5M	1M	2.5M	1M
Format	All	All	All	All	All
Multipoint operation	Std.	Std.	Std.	Std.	Std.
Terminal interface	Coax	Coax	Twinax	Coax	Twinax
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	—	—	—	—	—
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	May 1985	May 1985	January 1986	August 1986	March 1987
Date of first production delivery	October 1985	August 1985	May 1986	November 1986	March 1987
Display units installed to date	1,000	3,000	300	100	—
Serviced by	IIS	IIS	IIS	IIS	IIS
COMMENTS					

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VENDOR AND MODEL	IBM 3101	IBM 3104	IBM 3161	IBM 3162	IBM 3163
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Either	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	8775, 3276, 3278	3101	3101, 3161	3101
Teletype compatibility	Std.	No	Std.	Std.	Std.
Other compatibility	—	—	See comments	See comments	DEC VT100/VT52 (via opt. cartridge)
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	1,920	1,920	2,000-3,828	1,920
Memory capacity, no. char./lines/pages	—	—	1,920 char.	1,920 char.	7,680 char.
Screen arrangement, lines x char./line	24x80 plus status line	24x80 plus status line	24x80 plus status line	24/29x80/132	24x80 plus status line
Screen area (diagonal), inches	12	12	12	14	12
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	128 ASCII	94	128 ASCII	128 ASCII	128 ASCII
Symbol formation	7x14 dot matrix	7x14 dot matrix	8x16 dot matrix	8x16 dot matrix	8x16 dot matrix
Character phosphor	Green	White	Green (11/12); amber (210/220	Green or amber	Green (11/12); amber (210/220)
Color capability	No	No	No	No	No
Graphics	No	No	Line drawing set	Line drawing set	Line drawing set
Programmable field/char. highlighting via:					
Underline	No	Std.	Std.	Std.	Std.
Blink	No	Std.	Std.	Std.	Std.
Blank	No	Std.	Std.	Std.	Std.
Bold	No	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	No	Std.
Scroll	No	Std.	Up/down std.	Up/down std.	Up/down, smooth
Paging	No	No	No	No	4 std.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Addressable	Both std.	Addressable	Addressable	Addressable
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	No	Std.	Std.	Std.	Std.
Split screen/windows	No	Std.	Std.	Std.	Std.
Tabulation	Std.	Std.	Std.	Std.	Std.
Character insert/delete	No	Std.	No	No	Std.
Line insert/delete	No	Std.	No	No	Std.
Erase	Line/screen std.	Char./field/screen std.	Line/screen std.	Line/screen std.	Line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter, data entry	Typewriter	Typewriter	Typewriter
Character/code set	ASCII	EBCDIC	ASCII	ASCII	ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	8 std.	10 (Model B1); 24 (Model B2)	24 std.	24 std.	24 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	Std.	4201 Proprinter	4201 Proprinter	4201 Proprinter
Line printer, type, and speed	No	Std.	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	RS-232-C std.	RS-232-C std.	Std.
Other vendor-supplied devices	—	Audible alarm, keylock, clock	—	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Synchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII	BSC/SDLC	XON/XOFF	XON/XOFF	XON/XOFF
Code	ASCII	EBCDIC	ASCII	ASCII	ASCII
Speed, bits/second	110-9600	Up to 38,400	50-19,200	50-19,200	50-19,200
Format	Character/block(23)	Block	Char./block	Char./block	Char./block
Multipoint operation	No	Std.	No	No	No
Terminal interface	RS-232-C or RS-422-A	Communication loop, twisted-pair	RS-232-C or RS-422-A	RS-232-C or RS-422-A	RS-232-C or RS-422-A
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,430-1,650	2,190-2,250	695-774	645-724	1,095-1,174
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	77-209	104-231	35-65	35-45	40-80
Date of announcement	1979	March 1982	June 1985	September 1986	June 1985
Date of first production delivery	1979	—	July 1985	October 1986	July 1985
Display units installed to date	Over 150,000	—	—	—	—
Serviced by	IBM	IBM	IBM	IBM	IBM
COMMENTS	Models 13 & 23; all other models have been withdrawn from marketing	Model B1 equipped with 75-key data entry keyboard, Model B2 equipped with 87-key typewriter keyboard; used with the 8100 Information System	Models 11 & 12; terminal emulations include: ADDS Viewpoint, Lear Siegler ADM 3A, Hazeltine 1500, & TeleVideo 910; Models 210 and 220 feature amber/gold phosphor characters	Models 110/120, 210/220, 310/320, 410/420; terminal emulations include: DEC VT220/100/52, TVI 910/910+/912/ 920/925/925E, Haz. 1500, ADDS VP A2, LSI ADM3A/5, Wyse WY-50/50+	Models 11 & 12; may be divided into 3 horizontal or vertical viewports, utilizing a 7,680-character data buffer; Models 210 & 220 feature amber/gold char-acters

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VENDOR AND MODEL	IBM 3164	IBM 3178	IBM 3179	IBM 3179-G	IBM 3180
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Cluster	Cluster	Cluster	Either
Maximum displays/controller	—	32	32 (1); 9 (2)	32	32 (Mod.1); 9 (2)
Transportability	No	No	No	No	No
IBM compatibility	3101	3270 System	3270 (1); 5250 (2)	3270 System	3270 (1); 5250 (2)
Teletype compatibility	Std.	No	No	No	No
Other compatibility	DEC VT100/VT52 (via opt. cartridge)	IBM 3278 Model 2	IBM 3279-S2A/S2B (1); 5292-1 (2)	IBM 3179/3279-S3G	IBM 3278 (Model 1); 5251 (Model 2)
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	1,920	1,920	1,920, 2,560	1920-3564(1); 1920
Memory capacity, no. char./lines/pages	7,680 char.	—	—	—	—
Screen arrangement, lines x char./line	24x80 plus status line	24x80	24x80	24/32x80	24/32/43x80, 27x132 (Mod.1); 24x80 (2)
Screen area (diagonal), inches	14	12	14	14	15
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	128 ASCII	94	94 EBCDIC	EBCDIC/APL/graphics	94 EBCDIC
Symbol formation	8x16 dot matrix	7x14 dot matrix	7x14 dot matrix	720x384 pixels/APA	8x8/8x11 dot matrix
Character phosphor	Color	Green	Color	Color	Green
Color capability	8 colors	No	4/7 colors	8 colors	No
Graphics	Line drawing set	No	No	Std.	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	No	No	No	No
Scroll	Up/down, smooth	No	No	No	No
Paging	4 std.	No	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Addressable	Addressable only	Addressable only	Addressable only	Addressable only
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	Std.	No	No	No	No
Tabulation	Std.	Std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	No	No	No	No
Erase	Line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter, data entry	Typewriter, data entry, APL	Typewriter, APL	Typewriter, data entry
Character/code set	ASCII	EBCDIC	EBCDIC	EBCDIC/APL	EBCDIC
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std.	10/12 std.	24 std.	24 std.	24 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	4201 Proprinter	Std.	Std.	Std.	Std.
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	—	Audible alarm, security keylock	Audible alarm, security keylock	Color Jetprinter screen printer, mouse, plotters via 3979 Expansion unit	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Synchronous	Synchronous	Synchronous	Synchronous
Communications protocol	XON/XOFF	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC
Code	ASCII	EBCDIC	EBCDIC	EBCDIC	EBCDIC
Speed, bits/second	50-19,200	1200-9600	1200-9600	1200-9600	1200-9600
Format	Char./block	Block	Block	Block	Block
Multipoint operation	No	Std.	Std.	Std.	Std.
Terminal interface	RS-232-C or RS-422-A	Coaxial, twisted-pair	Coaxial, twinaxial, twisted-pair	Coaxial, twisted-pair	Coaxial, twinaxial, twisted-pair
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,295-1,374	1,495-1,550	2,095(1); 2,195(2)	2,995	2,295(2); 2,195(1)
Controller, purchase	—	4,885-18,230	2,650-18,230	4,885-18,230	2,650-18,230
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	45-85	66-252	92-142	92-142	69-135
Date of announcement	February 1986	March 1983	March 1984	June 1985	March 1984
Date of first production delivery	February 1986	—	March 1984	June 1985	March 1984
Display units installed to date	—	—	—	—	—
Serviced by	IBM	IBM	IBM	IBM	IBM
COMMENTS	Models 11 & 12; may be divided into 3 horizontal or vertical viewports, utilizing a 7,680-character data buffer	Part of 3270 Information Display System; attaches to 3174, 3274, or 3276 control unit; Models C1, C2, C3, & C4	Available in two models; Model 1 is part of 3270 Information Display System; attaches to 3174, 3274, 3276, & 5294 control units	Part of 3270 Information Display System; attaches to 3174/3274/3276 control units; Models G1 & G2; 3979 Expansion Unit ($295) provides auxiliary device ports	Available in two models; Model 1 is part of 3270 Information Display System; Model 2 is part of 5250 Information Display System; Model 1 features multiple display capacities

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VENDOR AND MODEL	IBM 3191	IBM 3193	IBM 3194	IBM 3196	IBM 3276
TERMINAL DESCRIPTION					
Standalone or cluster	Cluster	Cluster	Cluster	Either	Cluster
Maximum displays/controller	32	32	32	Up to 9	8
Transportability	No	No	No	No	No
IBM compatibility	3270 System	3270 System	3270 System	5291-2	3270 System
Teletype compatibility	No	No	No	No	No
Other compatibility	IBM 3278 Model 2, 3178	IBM 3278 Models 2, 3, & 4, 3178	IBM 3179 Model 1 '	—	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	1,920-3,840	1,920	1,920	960-3,440
Memory capacity, no. char./lines/pages	—	—	—	—	—
Screen arrangement, lines x char./line	24x80	24/32/43/48x80	24x80	24x80 plus status line	12/24/32/43x80
Screen area (diagonal), inches	12	15	14	12	14
Tilt/swivel screen	Std.	Std.	Std.	Tilt std.	No
Total displayable symbols	94	94	94	96 EBCDIC	96 EBCDIC; 120 APL
Symbol formation	7x14 dot matrix	880x1200 dots	—	720x384 pixels	7x11/7x14 dot matr.
Character phosphor	Green (A10/A20); amber (B10/B20)	Black/white	Color	Green (A10/A20); amber (B10/B20)	White
Color capability	No	No	7 colors	No	No
Graphics	No	Images	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	No	No
Scroll	No	No	No	Std.	No
Paging	No	No	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	No
Addressable/readable cursor	Addressable only	Addressable only	Addressable only	Both std.	Addressable only
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	No	No	No	No
Tabulation	Std.	Std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	No	No	No	No	No
Erase	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./field/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter, data entry	Typewriter, data entry	Typewriter, data entry	Typewriter	Typewriter, data entry, APL
Character/code set	EBCDIC	EBCDIC	EBCDIC	EBCDIC	EBCDIC
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	10/12 std.	10/12 std.	10/12 std.	24 command functions	12/24 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	Std.	Std.	Std.	Std.	Std.
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	Audible alarm, security keylock	Audible alarm, security keylock	Audible alarm, security keylock	Audible alarm, security keylock	Audible alarm, magnetic slot reader, keylock, light pen
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full duplex	Half/full duplex
Technique	Synchronous	Synchronous	Synchronous	Synchronous	Synchronous
Communications protocol	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC
Code	EBCDIC	EBCDIC	EBCDIC	EBCDIC	EBCDIC
Speed, bits/second	1200-9600	1200-9600	1200-9600	1200-9600	1200-9600
Format	Block	Block	Block	Block	Block
Multipoint operation	Std.	Std.	Std.	Std.	Std.
Terminal interface	Coaxial, twisted-pair	Coaxial, twisted-pair	Coaxial, twisted-pair	Twinaxial, twisted-pair	Coaxial, twisted-pair
Integral modem	No	No	No	Opt.	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,295	2,495	2,895	1,295	5,380-5,830
Controller, purchase	4,885-18,230	4,885-18,230	4,885-18,230	2,650	Included
Monthly prime-shift maintenance	—	—	—	—	32-39
Annual prime-shift maintenance	40	75	240	55	
Date of announcement	June 1986	June 1986	June 1986	June 1986	1977
Date of first production delivery	June 1986	September 1986	3rd quarter 1987	—	1977
Display units installed to date	—	—	—	—	
Serviced by	IBM	IBM	IBM	IBM	IBM
COMMENTS	Part of 3270 Information Display System; attaches to 3174, 3274, or 3276 control unit; Models A10, A20, B10, & B20	Part of 3270 Information Display System; attaches to 3174, 3274, or 3276 control unit; Models 010 & 020; provides multiple logical terminals, multiple partitions & imaging	Part of 3270 Information Display System; attaches to 3174, 3274, or 3276 control unit; Models H20 & H50; provides windowing, with two notepads & from 1 to 4 host sessions	Part of 5250 Information Display System; Models A10 & B10 attach to 5294 control unit; Models A20 and B20 do not	Control unit/display station; part of 3270 Information Display System; supports up to 7 additional devices

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VENDOR AND MODEL	IBM 3278	IBM 3279	IBM 3290	IBM 5251	IBM 5291/5292
TERMINAL DESCRIPTION					
Standalone or cluster	Cluster	Cluster	Cluster	Either	Either
Maximum displays/controller	32	32	32	Up to 9	Up to 9
Transportability	No	No	No	No	No
IBM compatibility	3270 System	3270 System	3270 System	5250 System	5251-11
Teletype compatibility	No	No	No	No	No
Other compatibility	—	—	—	—	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	960-3,564	1,920, 2,560	5,300, 9,920	1,920	1,920
Memory capacity, no. char./lines/pages	—	—	—	—	—
Screen arrangement, lines x char./line	12/24/32/43x80, 27x132	24/32x80	50x106, 62x160	24x80	24x80 plus status line
Screen area (diagonal), inches	14	14	10.7 x 13.4	12	12
Tilt/swivel screen	No	No	Tilt std.	No	Tilt std.
Total displayable symbols	64/96 EBCDIC; 120APL	94 EBCDIC; 120 APL	64/96 EBCDIC; 120APL	96 EBCDIC; 188 opt.	96 EBCDIC
Symbol formation	7x12/7x14 dot matr.	9x12 dot matrix	5x8/7x9 dot matrix	8x16 dot matrix	7x11 dot matrix
Character phosphor	White	Color	Amber gas plasma	White	White
Color capability	No	4/7 colors	No	No	7 colors (5292)
Graphics	No	Opt.	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	No	Std.
Blink	Std.	Std.	Std.	No	Std.
Blank	Std.	Std.	Std.	No	Std.
Bold	Std.	Std.	Std.	No	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	No	No
Scroll	No	No	Std.	Std.	Std.
Paging	No	No	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Addressable only	Addressable only	Addressable only	Both std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	No	Up to 16 partitions	No	No
Tabulation	Std.	Std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	No	No	No	No	No
Erase	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./field/screen std.	Char./field/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter, data entry, APL	Typewriter, data entry, APL	Typewriter, APL	Typewriter	Typewriter
Character/code set	EBCDIC	EBCDIC	EBCDIC	EBCDIC	EBCDIC
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	12/24 std.	10-12 std.	24 std.	24 std.	24 command functions
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	Std.	Std.	Std.	Std.	Std.
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	Audible alarm, magnetic slot reader, keylock, I.D. reader	Audible alarm, magnetic slot reader, light pen, keylock	Audible alarm, security keylock	Magnetic stripe reader, selector light pen, audible alarm	Magnetic stripe reader, selector light pen, keylock
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full duplex	Half/full duplex
Technique	Synchronous	Synchronous	Synchronous	Synchronous	Synchronous
Communications protocol	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC
Code	EBCDIC	EBCDIC	EBCDIC	EBCDIC	EBCDIC
Speed, bits/second	1200-9600	1200-9600	1200-9600	1200-9600	1200-9600
Format	Block	Block	Block	Block	Block
Multipoint operation	Std.	Std.	Std.	Std.	Std.
Terminal interface	Coaxial, twisted-pair	Coaxial, twisted-pair	Coaxial, twisted-pair	Twinaxial, twisted-pair	Twinaxial, twisted-pair
Integral modem	No	No	No	Opt.	Opt.
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,484-2,060	2,190-3,115	7,100	2,135-3,040	1,850/4,950-6,995
Controller, purchase	4,885-18,230	4,885-18,230	4,885-18,230	2,650	2,650
Monthly prime-shift maintenance	10.00-12.50	1925	30	20-44	—
Annual prime-shift maintenance	—	—	210	—	115/423-513
Date of announcement	1977	October 1979	March 1983	1977	July 1982
Date of first production delivery	1978	october 1979	—	1978	—
Display units installed to date	—	—	—	—	—
Serviced by	IBM	IBM	IBM	IBM	IBM
COMMENTS	Part of 3270 Information Display System; attaches to 3174, 3274, & 3276 control units	Part of 3270 Information Display System; attaches to 3174, 3274, & 3276 control units	Part of 3270 Information Display System; attaches to 3174 & 3274 control units	Part of 5250 Information Display System; 5251-11 is remote cluster or local station; 5251-12 is remote cluster controller/station; attaches to 5294 control unit	5291 is a monochrome terminal; 5292 is a color version available in two models; part of 5250 Information Display System; attach to 5294 control unit

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VENDOR AND MODEL	IBM 8775	ITT Courier 1700	ITT Courier 1778	ITT Courier 1900	ITT Courier 9230/9232
TERMINAL DESCRIPTION					
Standalone or cluster	Either	Cluster	Cluster	Cluster	Cluster
Maximum displays/controller	—	32	32	32	32
Transportability	No	No	No	No	No
IBM compatibility	Std.	3178	3178	3179	3180/3278
Teletype compatibility	No	No	No	No	No
Other compatibility	—	—	—	—	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	960-3,440	1,920	1,920	1,920	1,920-3,564
Memory capacity, no. char./lines/pages	—	1920 char.	1,920 char.	1,920 char.	1,920-3,564 char.
Screen arrangement, lines x char./line	12/24/32/43x80	24x 80	24x 80	24x80	24/32/43x80, 27x132
Screen area (diagonal), inches	12	12	12	14	15
Tilt/swivel screen	Tilt std.	Std.	Std.	Std.	Std.
Total displayable symbols	96	94 EBCDIC/ASCII	94 EBCDIC/ASCII	96	96
Symbol formation	9x12/9x16 dot matr.	7x8 dot matrix	7x8 dot matrix	7x8 dot matrix	7x7/7x8/7x10
Character phosphor	White	Green	Green or amber	Color	Green (9230); amber (9232)
Color capability	No	No	No	7 colors std.	No
Graphics	No	No	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std./opt.	Std./opt.	Std./opt.	Std.
Blink	Std.	Std./opt.	Std./opt.	Std./opt.	Std.
Blank	No	No	No	No	No
Bold	No	No	No	No	No
Reverse	Std.	No	No	No	No
Double size	No	No	No	No	No
Scroll	Std.	No	No	No	No
Paging	No	No	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	Std.	No	No	No	No
Tabulation	Std.	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	No	No	No	No
Erase	Char./field/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter, data entry	Typewriter, data entry	Typewriter, data entry	Typewriter	Typewriter, data entry, APL
Character/code set	EBCDIC/APL	94 EBCDIC/ASCII	94 EBCDIC/ASCII	96 EBCDIC/ASCII	EBCDIC
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	Std. (various)	24 std.	24 std.	24 opt.	24 std.
Numeric keypad	Std.	Opt.	Opt.	Opt.	Opt.
ANCILLARY DEVICES					
Serial printer, type, and speed	Std.	Up to 400 cps	Up to 400 cps	150-240 cps	Up to 400 cps
Line printer, type, and speed	Std.	300/600 lpm	300/600 lpm	600 lpm	300/600 lpm
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	No	No	No	No
Other vendor-supplied devices	Audible alarm, keylock, clock	Selector light pen, keylock, audible alarm	Selector light pen, keylock, audible alarm	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half-duplex	Half-duplex	Half-duplex	Half-duplex
Technique	Synchronous	Synchronous	Synchronous	Synchronous	Synchronous
Communications protocol	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC
Code	EBCDIC	EBCDIC	EBCDIC	EBCDIC	EBCDIC
Speed, bits/second	Up to 38,400	Up to 19,200	Up to 19,200	Up to 19,200	Up to 19,200
Format	Block	Block	Block	Block	Block
Multipoint operation	Std.	Std.	Std.	Std.	Std.
Terminal interface	Communication loop, twisted-pair	Coaxial	Coaxial	Coaxial	Coaxial
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	2,965-3,450	1,295	1,295	1,995	1,995
Controller, purchase	—	3,600 & up	3,600 & up	5,700 & up	5,700 & up
Monthly prime-shift maintenance	21.00-25.50	—	—	—	10
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	October 1978	—	March 1985	April 1984	April 1984
Date of first production delivery	August 1979	1983	1st Q/1985	Fall 1984	Fall 1984
Display units installed to date	—	—	—	—	—
Serviced by	IBM	ITT Courier	ITT Courier	ITT Courier	ITT Courier
COMMENTS	Workstation for 8100 Information System; also attaches to 4331 processor, 4300 & S/370	Part of 9000 Series; connects to ITT Courier 94XX controllers	Part of 9000 Series; connects to ITT Courier 94XX controllers; also connects to IBM 3274/3276 controllers, IBM 3174 controller	Part of 9000 Series; connects to ITT Courier 94XX controllers	Part of 9000 Series; attaches to ITT Courier 94XX controllers

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VENDOR AND MODEL	ITT Courier 9236	ITT Courier 9210/12	ITT Courier 9216	ITT Qume QVT 101	ITT Qume QVT 103
TERMINAL DESCRIPTION					
Standalone or cluster	Cluster	Cluster	Cluster	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	3279	3270	3270	No	No
Teletype compatibility	No	No	No	Std.	Std.
Other compatibility	—	—	—	TeleVideo 910, Haz. 1500, LSI ADM 3A/5	DEC VT100/132, VT52
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920, 2,560	1,920	1,920	1,920	1,920, 3,168
Memory capacity, no. char./lines/pages	1,920 or 2,560 char	1,920	1,920	—	2 pages std.
Screen arrangement, lines x char./line	24/32x80	24/32x80	24/32x80	24x80 plus status line	24x80/132
Screen area (diagonal), inches	14	14	14	14	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	96	92	92	128 ASCII	128 ASCII
Symbol formation	7x8/7x10 dot matrix	7x8 in 9x14 cell	7x8 in 9x14 cell	7x11 in 9x12 cell	7x9 in 10x12 cell
Character phosphor	Color	Green or amber	Color	Green std.; amber opt.	Green std.; amber opt.
Color capability	7 colors std.	No	7 colors std.	No	No
Graphics	No	No	No	15 graphics symbols	15 graphics symbols
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	No	Std.	Std.	Std.	Std.
Bold	No	Std.	Std.	Std.	Std.
Reverse	No	Std.	Std.	Std.	Std.
Double size	No	No	No	No	Std.
Scroll	No	No	No	Std.	Smooth std.
Paging	No	No	No	No	2 std., to 4 opt.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Std.	Std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	No	No	No	Std.
Tabulation	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	No	No	No	Std.	Std.
Erase	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen opt.
KEYBOARD PARAMETERS					
Style	Typewriter, data entry, APL	Typewriter, data entry	Typewriter, data entry	Typewriter	Typewriter
Character/code set	EBCDIC	EBCDIC	EBCDIC	128 ASCII	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std.	24 opt.	24 opt.	4 std. (12 functions)	4 std. (12 functions)
Numeric keypad	Opt.	Opt.	Opt.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	Up to 400 cps	Std.	Std.	No	No
Line printer, type, and speed	300/600 lpm	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	No	Std.	Std.	Std.	Std.
Other vendor-supplied devices	—	Selector light pen, keylock, audible alarm	Selector light pen, keylock, audible alarm	—	—
TRANSMISSION PARAMETERS					
Mode	Half-duplex	Half/full duplex	Half/full duplex	Half/full-duplex	Half/full-duplex
Technique	Synchronous	Synchronous	Synchronous	Asynchronous	Asynchronous
Communications protocol	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC	ASCII	ASCII
Code	EBCDIC	EBCDIC	EBCDIC	ASCII	ASCII
Speed, bits/second	Up to 19,200	Up to 19,200	Up to 19,200	50-19,200	50-19,200
Format	Block	Block	Block	Char./block	Char./block
Multipoint operation	Std.	Std.	Std.	No	No
Terminal interface	Coaxial	Coaxial	Coaxial	RS-232-C std.; RS-422, 20mA opt.	RS-232-C std.; 20mA opt.
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	2,595	1,295	1,995	395	895
Controller, purchase	5,700 & up	3,600 & up	3,600 & up	—	—
Monthly prime-shift maintenance	14	14	14	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	April 1984	July 1986	July 1986	March 1985	December 1982
Date of first production delivery	Fall 1984	July 1986	July 1986	April 1985	January 1983
Display units installed to date	—	—	—	Over 12,000	—
Serviced by	ITT Courier	ITT Courier	ITT Courier	Qume, ITT Servcom	Qume, ITT Servcom
COMMENTS	Part of 9000 Series; attaches to ITT Courier 94XX controllers	Includes a three-year on-site maintenance warranty	Includes a three-year on-site maintenance warranty		Foreign character sets, screen saver automatic shutoff

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VENDOR AND MODEL	ITT Qume QVT 101 Plus	ITT Qume QVT 119 Plus	ITT Qume QVT 201	ITT Qume QVT 202	ITT Qume QVT 203 Plus
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	One	One	—	—	One
Transportability	Carry	Carry	No	No	Carry
IBM compatibility	—	3101	No	No	—
Teletype compatibility	—	—	Std.	Std.	—
Other compatibility	TeleVideo 910/920/925, QVT 101	QVT 119, WY-50, TVI 910+/920/925/950	DEC VT102, VT220, VT100	DEC VT102, VT220, VT100, VT52	DEC VT220/131/100/50, QVT 103/203
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	3,300	1,920, 3,168	1,920, 3,168	3,300
Memory capacity, no. char./lines/pages	4 pages	4 pages	1 page std.	1 page std.	4 pages
Screen arrangement, lines x char./line	24x80	24x80/132 plus status line	24x80/132	24x80/132	24x80/132 plus status line
Screen area (diagonal), inches	14	14	14	14	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	96 ASCII, 16 graph.	96 ASCII/16 graphic	128 ASCII	128 ASCII	96 ASCII, 96 DEC
Symbol formation	7x11 in 9x12 cell	7x11 in 10x12/9x12	7x9 in 10x10/9x10	7x9 in 10x10/9x10	7x11 in 10x12/9x12
Character phosphor	Green std.; amber opt.	Green std.; amber opt.	Green std.; amber opt.	Green std.; amber opt.	Green std.; white opt.
Color capability	No	No	No	No	No
Graphics	16 graphics symbols	16 graphics char.	15 graphics char.	15 graphics char.	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	No
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	Std.	Std.	Std.	Std.
Scroll	Jump	Up/down, smooth	Smooth std.	Smooth std.	Up/down, smooth
Paging	4 std.	—	No	No	—
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Addressable
Protected format	Std.	Std.	No	No	Std.
Partial screen transmit	Std.	Std.	No	No	Std.
Split screen/windows	No	Split screen	Std.	Std.	Scrolling regions
Tabulation	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	—	—	128 ASCII	128 ASCII	—
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	44 std.	44 std.	34 std.	32 std.	15 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	—	—	45-90 cps	45-90 cps	—
Line printer, type, and speed	—	—	No	No	—
Composite video	No	No	No	Std.	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	No	No	Laser printer, 10 ppm	Laser printer, 10 ppm	No
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	—	—	ASCII	ASCII	—
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	Up to 19,200	Up to 38,400	50-19,200	50-19,200	Up to 38,400
Format	Char./line/block	Char./line/block	Character	Character	Char./line/block
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C std.; RS-422 opt.	RS-232-C std.; RS-422 opt.	RS-232-C std.; RS-422, 20mA opt.	RS-232-C std.; RS-422, 20mA opt.	RS-423 std.; RS-422 opt.
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	445	595	695	795	645
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	April 1986	April 1986	March 1985	March 1985	November 1986
Date of first production delivery	April 1986	June 1986	March 1985	March 1985	January 1987
Display units installed to date	—	—	—	—	—
Serviced by	ITT Servcom	ITT Servcom	ITT Servcom	ITT Servcom	ITT Servcom
COMMENTS	Amber or white phospher screen opt., foreign char. sets, screen saver; function keys changed from square to round; pastel shaded break, escape and clear keys	Amber or white phospher screen opt foreign char. sets, screen saver; function keys changed square to round, pastel shaded break escape, & clear keys; programmable clock & calc. func.			Amber or white phosphor screen opt foreign char. sets, screen saver; function keys changed fm square to round; IBM PC monitor compatible video output; multi pg supt, calc., clock, msg.

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VENDOR AND MODEL	Kimtron KT-5	Kimtron KT-7	Kimtron KT-7/PC	Kimtron KT-7/PC KIX	Kimtron KT-22
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	No
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	DEC VT52, LSI ADM 3A/5, Haz. 1500	TVI 920/925, DG D100/200, DEC VT52	IBM PC/XT/AT, TVI 925	IBM PC/XT/AT, PC XENIX, TVI 925	DEC VT220/100/52
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,000	1,920	2,000	2,000	2,000, 3,300
Memory capacity, no. char./lines/pages	2 pages opt.	1 std., 4 opt.	1 std., 4 opt.	1 std., 4 opt.	3 std.
Screen arrangement, lines x char./line	25x80	25x80 plus status line	25x80	25x80	25x80/132
Screen area (diagonal), inches	14	14	14	14	14
Tilt/swivel screen	Std. (plus height)	Std.	Std. (plus height)	Std. (plus height)	Std. (plus height)
Total displayable symbols	128 ASCII	128 ASCII	256 IBM	256 IBM	128 ASCII
Symbol formation	7x9 in 10x12 cell	7x9 dot matrix	7x9 in 9x13 cell	7x9 in 9x13 cell	7x10 in 10x10 cell
Character phosphor	P31 green; amber opt.	P31 green std., amber opt.	P31 green or amber	P31 green or amber	P31 green or amber
Color capability	No	No	No	No	No
Graphics	No	Std.	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	No	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	No	Std.
Scroll	Std.	Std.	Std.	Std.	Smooth or jump
Paging	2 opt.	1 std., 4 opt.	1 std. 4 opt.	1 std., 4 opt.	3 std.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Std.	Both std.	Std.	Std.	Std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	No	No	No.	No
Tabulation	Std.	Std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Char./line/screen std.	Line/form/page std.	Std.	Std.	Std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	PC AT	PC AT	Typewriter
Character/code set	ASCII/ANSI	ASCII	ASCII/PC	ASCII/PC XENIX	ANSI
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	82 std.	84 std.	20 std.	20 std.	30 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	Std.	Std.	Std.	Std.	Std.
Line printer, type, and speed	Std.	Std.	Std.	Std.	Std.
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	Std.	Std.	Std.	Std.	Std.
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII	ASCII	ASCII	ASCII	ASCII
Code	ASCII	ASCII	ASCII	ASCII	ANSI
Speed, bits/second	50-19,200	50-19,200	50-19,200	50-19,200	75-38,400
Format	Char./line/block	Char./block	Char./line/block	Char./line/block	Char./block/line
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C or 20mA	RS-232-C	RS-232-C, 20mA opt.	RS-232-C, 20mA opt.	RS-232-C; 20mA opt.
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	495	595	695	695	599
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	ITT	ITT	ITT	ITT
Annual prime-shift maintenance	—	ITT	ITT	ITT	ITT
Date of announcement	April 1985	December 1983	June 1984	June 1986	April 1985
Date of first production delivery	January 1986	December 1983	June 1984	November 1986	January 1986
Display units installed to date	10,000	30,000	60,000	—	10,000
Serviced by	ITT	ITT	ITT	ITT	ITT
COMMENTS		Line & block graphics; opt. PROM provides DEC, IBM, Data General, ANSI X3.64 compatibility			

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VENDOR AND MODEL	Kimtron KT-22 PC	Kimtron KT-22/Advanced	Lanpar Vision II 1100	Lanpar Vision II 3210	Lanpar Vision II 4200
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Either	Standalone	Standalone
Maximum displays/controller	—	—	1	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	No
Teletype compatibility	Std.	Std.	No	Std.	Std.
Other compatibility	DEC VT220, IBM PC/ XT/AT	DEC VT220/100/125;	Burroughs ET 1100/ TD 830	DEC VT100	DEC VT220
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,000, 3,300	2,000, 3,300	2,000	2,000, 3,300	2,000, 3,300
Memory capacity, no. char./lines/pages	3 std.	3 std.	181 lines std.	80-132/224/8	80-132/224/8
Screen arrangement, lines x char./line	25x80/132	25x80/132	25x40/80	25x80/132	25x80/132
Screen area (diagonal), inches	14	14	14	14	14
Tilt/swivel screen	Std. (plus height)	Std. (plus height)	Std.	Std.	Std.
Total displayable symbols	256 IBM, 128 ASCII	128 ASCII	128 ASCII/multinat.	128	288
Symbol formation	7x10 in 10x10 cell	7x10 in 10x10 cell	7x12 dot matrix	7x12 dot matrix	7x13 dot matrix
Character phosphor	P 31 green or amber	P31 green or amber	Green std.; amber opt.	Green, amber, or page white	Green, amber, or page white
Color capability	No	No	No	No	No
Graphics	No	No	No	No	Tek. 4010/4014 opt.
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	Std.	Std. (double wide)	Std.	Std.
Scroll	Smooth or jump	Smooth or jump	No	Up/down, smooth	Up/down, smooth
Paging	3 std.	3 std.	Up to 25 logical pp	4 std./8 opt.	8 std.
Selectable cursor blinking	Std.	Std.	Std. (3 modes)	Std. (3 modes)	Std. (3 modes)
Addressable/readable cursor	Std.	Std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	No
Split screen/windows	4 std.	4 std.	2 std.	6-line msg. window	6-line msg. window
Tabulation	Std.	Std.	Fwd./back std.	Fwd./back std.	Forward std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Std.	Std.	Char./line/field/ screen std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	PC AT	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	ASCII/ANSI/PC	ANSI	128 ASCII	ASCII	ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	30 std.	30 std.	14 std. (28 functions)	16 std. (96 functions)	15 std. (111 functions)
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	Std.	Std.	Up to 19.2K	Various	Various
Line printer, type, and speed	Std.	Std.	No	Various	Various
Composite video	No	No	Std.	Std.	Std.
Port for cust.-supplied devices	Std.	Std.	No	Std.	Std.
Other vendor-supplied devices	Std.	Std.	—	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half-duplex	Full-duplex	Full-duplex
Technique	Asynchronous	Asynchronous	Sync./async.	Asynchronous	Asynchronous
Communications protocol	ASCII	ASCII	Burroughs	TTY	TTY
Code	ANSI	ANSI	ASCII	ASCII	ASCII
Speed, bits/second	75-38,400	75-38,400	To 19,200 (async.)	Up to 19,200	Up to 19,200
Format	Char./block/line	Char./line/block	Block	Char./block	Character
Multipoint operation	No	No	Std.	No	No
Terminal interface	RS-232-C; RS-422 opt.	RS-232-C, 20mA, RS-422 opt.	RS-232-C	RS-232-C std.; 20mA opt.	RS-232-C std.; 20mA opt.
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	749	749	1,195	749	799
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	ITT	ITT	—	—	—
Annual prime-shift maintenance	ITT	ITT	—	—	—
Date of announcement	November 1986	November 1986	August 1985	April 1985	December 1986
Date of first production delivery	December 1986	December 1986	August 1985	April 1985	December 1986
Display units installed to date	—	—	—	—	—
Serviced by	ITT	ITT	Lanpar Technologies	Lanpar Technologies	Lanpar Technologies
COMMENTS					Tek 4010/14 add $449; Regis/Tek add $599

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VENDOR AND MODEL	Lanpar Vision II 3222	Lee Data 1214	Lee Data 1222	Lee Data 2131	Lee Data Datastream 8178
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Cluster	Cluster	Cluster	Either
Maximum displays/controller	—	32	32	32	32
Transportability	No	No	No	No	No
IBM compatibility	No	—	3278/3178/3180	3279/3179	3178/3278
Teletype compatibility	Std.	Std.	Std.	No	Std.
Other compatibility	DEC VT220	—	DEC VT100/VT132/VT52, HP 2624B	DEC VT52/VT100/VT132	DEC VT220
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,000, 3,300	1,920	1,920-3,564	1,920, 3,564	1,920, 3,300
Memory capacity, no. char./lines/pages	80-132/224/8	1 page	1 page	1 page	3300
Screen arrangement, lines x char./line	25x80/132	24x80	24/32/43x80, 27x132	24/32x80 plus status line	24x80/132
Screen area (diagonal), inches	14	14	15	14	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	288	96 EBCDIC	96 EBCDIC/ASCII	96 EBCDIC/ASCII	96
Symbol formation	7x12 dot matrix	—	7x9 dot matrix	7x9 dot matrix	7x7 dot matrix
Character phosphor	Green, amber, or page white	Green or amber	Green	Color	P31 green or P134 amber
Color capability	No	No	No	Color std.	No
Graphics	Tek. 4010/4014 opt.	No	No	Opt.	ASCII (business)
Programmable field/char. highlighting via:					
Underline	Std.	No	Opt.	Yes	Std.
Blink	Std.	No	Opt.	Yes	Std.
Blank	Std.	No	Opt.	Opt.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Opt.	Yes	Std.
Double size	Std.	No	No	No	No
Scroll	Up/down, smooth	No	No	No	Std.
Paging	4 std./8 opt.	No	No	No	No
Selectable cursor blinking	Std. (3 modes)	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Std.	Addressable only	Windowing	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	No	Std.	Std.	Std.	Std.
Split screen/windows	6-line msg. window	No	Windowing	Application control	No
Tabulation	Forward std.	Std.	Fwd./back std.	Fwd./back std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	No	No	No	Std.
Erase	Char./line/screen std.	Char./line/screen std.	Std.	Std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter, data entry	Typewriter, data entry, APL	Typewriter, data entry, APL	Typewriter (IBM 3180-style)
Character/code set	ASCII	96 EBCDIC	96 EBCDIC/ASCII	96 EBCDIC/ASCII	96 ASCII/EBCDIC
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	15 std. (111 functions)	24 std.	24 std.	24 std.	24 std.
Numeric keypad	Std.	Std.	Std./opt.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	Various	No	80-340 cps	80-340 cps	No
Line printer, type, and speed	Various	No	300 lpm	300 lpm	No
Composite video	Std.	No	No	No	No
Port for cust.-supplied devices	Std.	No	Opt.	Opt.	RS-232-C
Other vendor-supplied devices	—	Audible alarm, security keylock	Bar code reader, mag. stripe reader, light pen	Bar code reader, mag. stripe reader, light pen	—
TRANSMISSION PARAMETERS					
Mode	Full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Sync.	Sync./async.	Sync./Async.	Sync./async.
Communications protocol	TTY	BSC, SNA/SDLC	BSC,SNA/SDLC,ASCII	BSC, SNA/SDLC	ASCII/BSC/SNA
Code	ASCII	EBCDIC	EBCDIC/ASCII	EBCDIC	ASCII/EBCDIC
Speed, bits/second	Up to 19,200	—	19,200(sy)/9600(as)	2400-19,200	Up to 19,200
Format	Character	Block	Char./line/block	Block	Char./block
Multipoint operation	No	Std.	Std.	Std.	No
Terminal interface	RS-232-C std.; 20mA opt.	—	RS-232-C	RS-232-C	RS-232-C or 20 mA
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	725	—	—	—	995
Controller, purchase	—	—	—	—	5,000-26,000
Monthly prime-shift maintenance	—	—	—	9	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	April 1985	1986	1985	1985	May 1985
Date of first production delivery	April 1985	1986	September 1985	1985	May 1985
Display units installed to date	—	—	—	—	—
Serviced by	Lanpar Technologies	Lee Data	Lee Data	Lee Data	Datastream
COMMENTS	Tek 4010/14 add $449; Regis/Tek add $599	—	For use with Series 300 (3270) & Series 400 (3270/Async) controllers	For use with Series 300 (3270) & Series 400 (3270/Async) controllers	Attaches to Datastream BSC or SNA controllers; also attaches to DEC host or timesharing service

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VENDOR AND MODEL	Lee Data Datastream 8180	Liberty Freedom 110	Liberty Freedom 200/210	Liberty Freedom 220/240	Liberty Electronics Freedom One
TERMINAL DESCRIPTION					
Standalone or cluster	Either	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	32	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	3180	No	No	No	No
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	DEC VT220	TeleVideo 910, ADDS R25, LSI ADM 3A/5	TeleVideo 950, LSI ADM 31; Tektronix	DEC VT220/VT100/ VT52; Tektronix	TVI 950/925, Wyse WY-50, ADDS VP A2
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920-3,564	1,920	1,920	1,920	2,168
Memory capacity, no. char./lines/pages	3564	—	2 pages std.	132 or 80/24/1	4 pages
Screen arrangement, lines x char./line	24/32/43x80, 27x132	24x80 plus status line; 24x132 opt.	24x80 plus status line; 24x132 opt.	24x80 std.; 24x132 opt.	24x80/132
Screen area (diagonal), inches	14	12; 14 opt.	12; 14 opt.	12; 14 opt.	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	96	128 ASCII	128 ASCII & graphic	128 ASCII + graph.	128 ASCII
Symbol formation	7x7 dot matrix	7x9 dot matrix	7x9 dot matrix	7x9 in 10x12 field	7x9 dot matrix
Character phosphor	P31 green or P134 amber	P31 green std.; amber opt.	P31 green std.; amber opt.	P31 green std., amber opt.	Green
Color capability	No	No	No	No	No
Graphics	ASCII (business)	Line drawing set	Std. (210)	Std. (240)	Line drawing
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	No	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std/.
Double size	No	No	Std.	Std.	Std.
Scroll	Std.	Up std.	Std.	Std.	Up/down, smooth
Paging	No	No	2 std.	No	2 pages Std.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	No	Std.	Std.	Std.
Tabulation	Std.	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd/back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Char./line/screen std.	Line/page std.	Std.	Std.	Std.
KEYBOARD PARAMETERS					
Style	Typewriter (IBM 3180-style)	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	96 ASCII/EBCDIC	128 ASCII	ASCII	128 ASCII	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std.	10 std. (shiftable to 20)	47 std.	10 std. (20 functions)	44/88 programmable
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	RS-232-C	Std.	Std.	Std.	Std.
Other vendor-supplied devices	—	—	—	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Sync./async.	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII/BSC/SNA	ASCII	ASCII	ASCII	ASCII
Code	ASCII/EBCDIC	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	Up to 19,200	110-19,200	110-19,200	50-19,200	50-38.4K
Format	Char./block	Char./block	Char./block	Character	Character/block
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C or 20 mA	RS-232-C	RS-232-C	RS-232-C	RS-232-C
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,850	545	595/1,295	745/1,395	449
Controller, purchase	5,000-26,000	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	May 1985	3/84	11/83	6/84	March 1986
Date of first production delivery	May 1985	4/84	11/83	8/84	—
Display units installed to date	—	—	—	—	—
Serviced by	Datastream	Liberty Electronics Sorbus	Liberty Electronics Sorbus	Liberty Electronics, Sorbus	Liberty/third party
COMMENTS	Attaches to Datastream BSC or SNA controllers; also attaches to DEC host or timesharing service	Also provides Hazeltine 1420 emulation; 15 graphics characters; 8 foreign character sets	Freedom 210 provides Tektronix 4010/4014-compatible graphics	Freedom 240 provides Tektronix 4010/4014-compatible graphics	1 year warranty Emulations: Freedom 200, Adds VP A2, TVI 950/925, Lear Siegler ADM 31, Wyse WY-50

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VENDOR AND MODEL	Liberty Electronics Freedom One Plus	Liberty Electronics Freedom One Turbo	Link Technologies Link 125	Link Technologies Link 220	Link Technologies PCTerm
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	IBM PC only	IBM PC only	No	No	No
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	Freedom One	Freedom 1 Plus, DEC VT220/VT100/VT52	See comments (ADDS, LSI, TVI, Wyse)	DEC VT220, VT100, VT52, ANSI X3.64	Kimtron KT-7, Wyse WY-50
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,168	2,168	1,920, 3,168	1,920, 3,168	1,920, 3,168
Memory capacity, no. char./lines/pages	4 pages	4 pages	2 pages	2 pages	2 pages
Screen arrangement, lines x char./line	24x80/132	24x80/132	26x80/132	26x80/132	26x80/132
Screen area (diagonal), inches	14	14	14	14	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	128 ASCII	128 ASCII	128 ASCII + graphic	8 128 ASCII sets	256 ASCII
Symbol formation	7x9 dot matrix	7x9 dot matrix	8x13 in 9x14 field	8x13 in 10x14 field	8x13 in 9x14 field
Character phosphor	Amber	Green and amber	P31 green or P24 amber	P31 green or P24 amber	P31 green or P24 amber
Color capability	No	No	No	No	No
Graphics	Line drawing	Line drawing	Line std.	Line std.	Line std.
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	No	Std.	No
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	Std.	No	No	No
Scroll	Up/down, smooth	Up/down, smooth	Std.	Std.	Std.
Paging	2 pages std.	2 pages Std.	1 std., 2 opt.	2 std., 6 opt.	2 std.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Std.	Std.	Std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	Std.	Std.	Std.	Std.	Std.
Tabulation	Fwd/back std.	Fwd/back std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Std.	Std.	Std.	Std.	Std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	128 ASCII	128 ASCII	ASCII	ASCII	ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	44/88 programmable	44/88 programmable	40 std.	40 std.	40 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	—	—	—	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII	ASCII	ASCII	ASCII	ASCII
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	50-38.4K	50-38.4K	50-38,400	50-38,400	50-38,400
Format	Character/block	Character/block	Char./line/block	Char./line/block	Char./line/block
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C (RS-422, 20 mA opt.)	RS-232-C (RS-422, 20 mA opt.)	RS-232-C or 20 mA	RS-232-C, RS-423, or 20mA	RS-232-C or 20mA
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	549	599	649	699	649
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	October 1986	October 1986	February 1985	November 1985	November 1985
Date of first production delivery	—	—	March 1985	January 1986	November 1985
Display units installed to date	—	—	—	—	—
Serviced by	Liberty/third party	Liberty/third party	Dow Jones	Dow Jones	Dow Jones
COMMENTS	3 year warranty Emulations: Freedom One and all emulations; IBM PC; IBM PC compatibility with slave card	3 year warranty; IBM Pc compatibility w/slave card; emulations: IBM PC, DEC VT220/VT100/VT52, Data General Dasher D211 & D210	Emulations include: ADDS Viewpoint 60 & Viewpoint A1, Lear Siegler ADM 3A/5, TeleVideo 910, 925, & 950, Wyse WY-50		Multi-user PC terminal

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VENDOR AND MODEL	Matra Scanset 410/415/415HS	McDonnell Douglas Prism 7	McDonnell Douglas Prism 8	Megadata System 850	Memorex 2078
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Cluster
Maximum displays/controller	—	—	—	—	32
Transportability	Portable carry case	No	No	No	No
IBM compatibility	No	No	No	Opt.	3278
Teletype compatibility	Std.	Std.	Std.	Opt.	No
Other compatibility	DEC VT100/VT52	—	ANSI mode—subset of DEC VT220	Opt.	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	960, 1,920	1,920	1,920, 3,168	2,000	1,920-3,564
Memory capacity, no. char./lines/pages	2 pages opt.	80/25/1	80 or 132/25/8	16 pages	1 page
Screen arrangement, lines x char./line	24x40/80 plus status line	25x80	25x80/132	25x80	24/32/43x80, 27x132
Screen area (diagonal), inches	9	14	14	15	15
Tilt/swivel screen	No	Std.	Std.	Std.	Tilt std.
Total displayable symbols	96 ASCII	96 ASCII	96 ASCII	256	94; APL up to 222
Symbol formation	5x9 in 6x10 cell	7x9 in 9x12 cell	7x9 in 10x12 cell	11x15 dot matrix	9x12, 9x16 dot mat.
Character phosphor	P4 white	P31 green std.	P31 green std.; P134 amber opt.	P31 green std.; PC144 amber opt.	P39 green, PLA amber
Color capability	No	No	No	No	No
Graphics	No	No	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	No	Std.	Std.	Std.	Std.
Blank	No	Std.	Std.	Std.	Std.
Bold	No	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	Std.	No	No
Scroll	Up/down std.	Up/down, jmp./smth.	Up/down, jmp./smth.	Up/down std.	No
Paging	2 opt.	No	8 std.	Std.	No
Selectable cursor blinking	No	Std.	Std.	Std.	Std.
Addressable/readable cursor	Std.	Both std.	Both std.	Both std.	Std.
Protected format	No	Std.	Std.	Std.	Std.
Partial screen transmit	No	No	Std.	Std.	Std.
Split screen/windows	No	Horizontal std.	Horizontal std.	2 std.	No
Tabulation	Std.	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	No	No	Std.	No
Erase	Std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./field/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter, WP, data entry	Typewriter, WP, data entry	Typewriter	Typewr.,data entry, APL, attr. select
Character/code set	96 ASCII	96 ASCII	96 ASCII	128 ASCII	EBCDIC/ASCII/APL
Detachability	No	Std.	Std.	Std.	Std.
Program function keys	12 std.	18 std.	18 std.	96 std.	10/12/24 std.
Numeric keypad	No	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	120 cps dot matrix	Various matrix	Various matrix	30-350 cps impact	Impact,up to 350 cps
Line printer, type, and speed	No	150/300/600 lpm	150/300/600 lpm	No	No
Composite video	No	No	No	Opt.	No
Port for cust.-supplied devices	RS-232-C std.	Std.	Std.	3 std.	Std.
Other vendor-supplied devices	—	—	—	Tape punch, audible alarm, dual disk-ette drive	Light pen, ext. highlighting, APL, graph., secur. key-lock, audible alarm
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Async./Sync.	Synchronous
Communications protocol	ASCII	RG551A-video cont.	Various	To spec.	BSC/SDLC
Code	ASCII	ASCII	ASCII	ASCII/EBCDIC	EBCDIC/ASCII/APL
Speed, bits/second	75-2400	50-19,200	50-38,400	50-19,200	1200-56,000
Format	Line	Character	Character	Char./block	Block
Multipoint operation	No	No	No	Std.	Std.
Terminal interface	RS-232-C & RJ-11C	RS-232-C	RS-232-C or RS-422	RS-232-C	RS-232-C; coax A
Integral modem	Std.	No	No	Opt.	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	495; 595; 695	Contact vendor	Contact vendor	1,700-2,800	1,795-2,095
Controller, purchase	—	—	—	—	5,595-13,000
Monthly prime-shift maintenance	—	—	—	20-50	10-14
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	2/82	January 1986	January 1986	—	July 1979
Date of first production delivery	7/82	February 1986	February 1986	October 1981	February 1980
Display units installed to date	—	—	—	—	—
Serviced by	Matra, authorized distributors	McDonnell Douglas	McDonnell Douglas	Megadata, third party	Memorex
COMMENTS	Database access terminals; features include: one button auto logon; phone directory; built-in 1200 bps modem; VT100 terminal emulation; local memory; printer port	Replaces the Prism IV; formerly Microdata	Compatible with protocols offered by Tymnet; formerly Microdata	8 bit microprocess-or based terminal features noiseless operation and low power requirements; 2K EAROM for user-selection of transmission rate, parity mode, stop bits, etc.	Part of 207X Display System; attaches to 2174, 2274, & 2076 controllers, as well as to equivalent IBM controllers

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VENDOR AND MODEL	Memorex 2079	Memorex 2178	Memorex 2080	Memorex 2051	Memorex 2191
TERMINAL DESCRIPTION					
Standalone or cluster	Cluster	Cluster	Cluster	Cluster	Cluster
Maximum displays/controller	32	32	32	8	8
Transportability	No	No	No	No	No
IBM compatibility	3279	3178	3180	5251-11	5291-2/5251-11
Teletype compatibility	No	No	No	No	No
Other compatibility	—	—	Memorex 2078	—	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920, 2,560	1,920	1,920-3,564	1,920	1,920
Memory capacity, no. char./lines/pages	1,920/2,560 char.	1,920 char.	1 page	1,920 char.	1,920 char.
Screen arrangement, lines x char./line	24x80, 32x80	24x80	24/32/43x80, 27x132	24x80	24x80
Screen area (diagonal), inches	13	12	15	15	12
Tilt/swivel screen	Tilt std.	Std.	Std.	Std.	Std.
Total displayable symbols	Up to 222	94	94	—	—
Symbol formation	9x12 dot matrix	7x14 dot matrix	7x14 dot matrix	8x16 dot matrix	8x16 dot matrix
Character phosphor	P22 color	P39 green	P39 green	P39 green or PLA amber	P39 green or PLA amber
Color capability	4/7 colors std.	No	No	No	No
Graphics	Opt.	No	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	No	Std.	Std.	Std.
Blink	Std.	No	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	No	Std.	Std.	Std.
Double size	No	No	No	No	No
Scroll	No	No	No	No	No
Paging	No.	No	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Std.	Std.	Std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	No	No	No	No
Tabulation	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	No	No	No	No	No
Erase	Char./field/screen std.	Char./field/screen std.	Char./field/screen std.	Char./field/screen std.	Char./field/screen std.
KEYBOARD PARAMETERS					
Style	Typewr., data entry, APL, attr. select	Typewriter, data entry	Typewr.,data entry, APL, attr. select	Typewriter	Typewriter
Character/code set	EBCDIC/ASCII/APL	96 EBCDIC	EBCDIC/ASCII/APL	EBCDIC	EBCDIC
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	10/12/24 std.	24 std.	10/12/24 std.	10/12/24 std.	10/12/24 std.
Numeric keypad	Std.	Std. (Typewriter)	Std.	Std. (10 keys)	Std. (10 keys)
ANCILLARY DEVICES					
Serial printer, type, and speed	Up to 350 cps impact	120 cps impact	Impact, to 350 cps	Screen printer	Screen printer
Line printer, type, and speed	No	No	No	No	No
Composite video	Opt.	No	No	No	No
Port for cust.-supplied devices	Std.	No	Std.	No	No
Other vendor-supplied devices	Lgt. pen, alarm,ext. highlighting, graph. APL, keyboard num. lock,secu. lock	—	Light pen, ext. highlighting, APL, graph., secur. key-lock, audible alarm	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Synchronous	Synchronous	Synchronous	Synchronous	Synchronous
Communications protocol	BSC/SDLC	BSC, SNA/SDLC	BSC/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC
Code	ASCII/EBCDIC/APL	EBCDIC	EBCDIC/ASCII/APL	EBCDIC	EBCDIC
Speed, bits/second	1200-56,000	1200-56,000	1200-56,000	1200-9600	1200-9600
Format	Block	Block	Block	Block	Block
Multipoint operation	Std.	Std.	Std.	Std.	Std.
Terminal interface	RS-232-C; coax A	Coax A	Coax A	Twinax	Twinax
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	2,295-2,595	1,485	1,995	Contact vendor	1,545
Controller, purchase	5,595-13,000	5,595-13,000	5,595-13,000	—	—
Monthly prime-shift maintenance	16-18	—	—	—	—
Annual prime-shift maintenance	—	102	—	—	—
Date of announcement	August 1982	April 1974	April 1985	1982	September 1985
Date of first production delivery	December 1982	August 1984	May 1985	1982	September 1985
Display units installed to date	—	—	—	—	—
Serviced by	Memorex	Memorex	Memorex	Memorex	Memorex
COMMENTS	Part of 207X Display System; attaches to 2174, 2274, & 2076 controllers, as well as to equivalent IBM controllers	Part of 207X Display System; attaches to 2174, 2274, & 2076 controllers, as well as to equiv-alent IBM control-lers	Part of 207X Display System; attaches to 2174, 2274, & 2076 controllers, as well as to equivalent IBM controllers		

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VENDOR AND MODEL	Memorex 2179	Micro-Term Mime 2A	Micro-Term Ergo 201/301	Micro-Term Ergo 320	Micro-Term Twist
TERMINAL DESCRIPTION					
Standalone or cluster	Cluster	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	32	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	3279	No	No	No	No
Teletype compatibility	No	Std.	Std.	Std.	Std.
Other compatibility	—	DEC VT52, Hazeltine 1500, Soroc 120	TeleVideo 925, LSI ADM 3A, DEC VT100	DEC VT220	DEC VT100/VT52, ANSI, LSI, TVI
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920, 2,560	1,920	1,920	2,000, 3,300	2,000 or 5,760
Memory capacity, no. char./lines/pages	1,920/2,560 char.	—	1-2 pgs std.	1 page	3 pages
Screen arrangement, lines x char./line	24x80, 32x80	24x80	24x80; 24x132 (301 only)	25x80/132	25x80 or 72x80
Screen area (diagonal), inches	14	12	12	12	15
Tilt/swivel screen	Tilt std.	No	Tilt std.	Tilt std.	Std.
Total displayable symbols	Up to 222	128	128 ASCII	128 ASCII + (4x128)	128 ASCII + 128
Symbol formation	9x12 dot matrix	7x11 dot matrix	7x11 dot matrix	7x11 dot matrix	20x17 dot matrix
Character phosphor	P22 color	P4 white	P31 green;amber opt.	P31 green or amber	P4 white or amber
Color capability	4/7 colors std.	No	No	No	No
Graphics	Opt.	No	Opt.	Opt.	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	No	Std.	Std.	Std.
Bold	Std.	No	No	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	Std.	Std.
Scroll	No	Std.	Up/down, smooth std.	Up/down, smooth	Up/down, smooth
Paging	No	No	1-2 std.	1 std.	3 std.
Selectable cursor blinking	Std.	Std.	No	Std.	Std.
Addressable/readable cursor	Both std.	Std.	No	Std.	Std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	No	No	Std.	Std.
Tabulation	Fwd./back std.	Std.	Fwd./back std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	No	Std.	Std.	Std.	Std.
Erase	Char./field/screen std.	Char./line/screen std.	Std.	Std.	Std.
KEYBOARD PARAMETERS					
Style	Typewr., data entry, APL, attr. select	Typewriter	Typewriter	Typewriter (DEC VT220)	Typewriter
Character/code set	EBCDIC/ASCII/APL	128 ASCII	128 ASCII	ASCII	ASCII
Detachability	Std.	No	Std.	Std.	Std.
Program function keys	10/12/24 std.	Std.	16 std.	16 std.	16 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	Up to 350 cps impact	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	Opt.	No	No	Std.	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	Lgt. pen, alarm,ext. highlighting, graph. APL, keyboard num. lock,security lock	—	—	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Synchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	BSC/SDLC	ASCII	ASCII	—	—
Code	ASCII/EBCDIC/APL	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	1200-56,000	110-9600	Up to 19,200	Up to 19,200	Up to 19,200
Format	Block	Char./line/block	Char./line/block	Char./line	Char./line/block
Multipoint operation	Std.	No	No	—	—
Terminal interface	RS-232-C; coax A	RS-232-C or 20mA	RS-232-C std.; 20mA opt.	RS-232-C, RS-422, or 20mA	RS-232-C or 20mA
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	2,095	1,045	745-995	795	1,595
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	16-18	18-22	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	April 1986	—	1983	November 1984	July 1984
Date of first production delivery	May 1986	August 1978	1983	November 1984	April 1984
Display units installed to date					1000
Serviced by	Memorex	Western Union	Western Union	Western Union	Western Union
COMMENTS			Graphics option available for Ergo 201	Tektronix & ReGIS graphics option available	Screen rotates 90 degrees to display data in landscape (25x80) or full-page (72x80) format

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VENDOR AND MODEL	NCR 7910	NCR 7930	NCR 7950	Nixdorf 8278	Paradyne 7812
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Cluster	Cluster	Either
Maximum displays/controller	—	—	32	256	32
Transportability	No	No	No	No	No
IBM compatibility	No	No	3270	3278	3178
Teletype compatibility	Std.	Std.	No	No	No
Other compatibility	No	7900-1/7901/VP60	—	—	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,000	2,000	1,920	1,920	1,920
Memory capacity, no. char./lines/pages	12K	4K	—	—	128K
Screen arrangement, lines x char./line	25x80/132	25x80	24x80	24x80	24x80
Screen area (diagonal), inches	15	12	15	12	12
Tilt/swivel screen	Std.	Std.	Std.	Opt.	Std.
Total displayable symbols	128 ASCII, 32 graph	128 ASCII/12 graph	96 ASCII	96 EBCDIC	128 ASCII/EBCDIC
Symbol formation	7x9, 5x9 dot matrix	7x9 dot matrix	7x9 dot matrix	7x9 dot matrix	7x9 dot matrix
Character phosphor	Amber std.	P31 green std.	P31 green std.	Amber	P39 green or amber
Color capability	No	No	No	No	No
Graphics	Graphics char. set	Graphic clear set	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Opt.	No	Std.
Blink	Std.	Std.	Opt.	No	Std.
Blank	Std.	Std.	Opt.	No	Std.
Bold	Std.	Std.	Opt.	Std.	Std.
Reverse	Std.	Std.	Opt.	No	Std.
Double size	Std.	No	Opt.	No	No
Scroll	Up/down std.	Up std.	No	No	No
Paging	4 pages std.	2 std.	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Addressable only	Both std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	Std.	Std.	No	No	No
Tabulation	Fwd./back std.	Std.	Std.	No	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	No	Std.	Std.	No
Erase	Char./line/screen	Screen std.	Char./line/screen	Line/screen std.	Std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter, data entry	Typewriter, data entry, enhanced	Typewriter
Character/code set	128 ASCII	128 ASCII	ASCII/EBCDIC	96 EBCDIC	ASCII/EBCDIC
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	20	24 std.	24 std.	12-24 std.	24 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	—	Serial interface	200 cps matrix	40/100/150/210 cps	80-200 CPS matrix
Line printer, type, and speed	No	No	No	300 lpm steel band	400 LPM band
Composite video	No	No	No	No	No.
Port for cust.-supplied devices	Std.	Std.	No	No	No
Other vendor-supplied devices	—	—	Audible alarm	Audible alarm, security keylock	No
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half-duplex	Full-duplex
Technique	Asynchronous	Asynchronous	Synchronous	Synchronous	Synchronous
Communications protocol	TTY	TTY	SNA/SDLC	HDLC	Paradyne SDLC
Code	ASCII	ASCII	ASCII/EBCDIC	EBCDIC	ASCII/EBCDIC
Speed, bits/second	50-19,200	110-19.2	1200-9600	Up to 9600	Up to 256KB
Format	Char./page	Character/page	Block std.	Block	Block
Multipoint operation	No	No	Std.	Std.	No
Terminal interface	RS-232-C; RS-422 opt.	RS-232-C	Coaxial	RS-232-C/SAS	RS-232-C
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,995	995	1,395	1,610 (8278)	1,300
Controller, purchase	—	—	6,000	10,000	4,300
Monthly prime-shift maintenance	18	10-15	46-75	13	17
Annual prime-shift maintenance	—	—	—	156	204
Date of announcement	September 1983	January 1984	July 1983	November 1982	February 1985
Date of first production delivery	September 1983	January 1984	July 1983	June 1983	March 1985
Display units installed to date	—	—	—	—	1,100
Serviced by	NCR	NCR	NCR	Nixdorf	Paradyne
COMMENTS	96 Int'l symbols, conforms to ANSI X3.64 and NCR 7900-1/-4			Components of 8270 Compatible Display System; concurrent local & remote device support; no remote software for controller required; connects to 8274 controller	When connected to Paradyne's PIX, all devices appear as local channel attached; multiple protocols in controller allow multiple host access

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VENDOR AND MODEL	Paradyne 7813	Paradyne 7814	PHAZE P3278	PHAZE P3279	PHAZE P9020
TERMINAL DESCRIPTION					
Standalone or cluster	Either	Either	Cluster	Cluster	Either
Maximum displays/controller	32	32	32	32	32
Transportability	No	No	No	No	—
IBM compatibility	3279-2B/3B	3278 Models 2-5	3278/3178	3279-2A/3179	3278/PC
Teletype compatibility	No	No	—	No	No
Other compatibility	—	—	Std.	No	Std.
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920, 2,560	1,920/2,560/3,440	1,920	1,920	1,920
Memory capacity, no. char./lines/pages	384K-640K	384K-640K	—	—	To 640K
Screen arrangement, lines x char./line	24x80, 32x80	24/32/43x80, 27x132	24x80 plus status line	24x80 plus status line	24x80 plus status line
Screen area (diagonal), inches	13	14	12	14	12
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	128 ASCII/EBCDIC	256 ASCII/EBCDIC	128 EBCDIC	128 EBCDIC	256 EBCDIC/ASCII
Symbol formation	7x9 dot matrix	7x9 dot matrix	7x14 dot matrix	7x14 dot matrix	7x14 dot matrix
Character phosphor	Color	P39 green, amber	P42 green	Color	P42 green
Color capability	7 std.	No	No	4 colors std.	Opt.
Graphics	Std.	Opt.	—	No	—
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	No	No
Scroll	No	No	No	No	No
Paging	No	No	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	No	No	No	No
Tabulation	Std.	Std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	No	No	No	No	No
Erase	Std.	Std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter, data entry	Typewriter, data entry	Typewriter, data entry
Character/code set	ASCII/EBCDIC	ASCII/EBCDIC	EBCDIC	96 EBCDIC	EBCDIC
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std.	24 std.	24 std.	24 std.	24 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	80-200 CPS matrix	80-200 CPS matrix	No	No	No
Line printer, type, and speed	400 LPM band	400 LPM band	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Parallel	Std.
Other vendor-supplied devices	Local storage option	Local storage option	Light pen, magnetic card reader	Light pen, magnetic card reader, bar code	Light pen, mag card reader, 2 360KB drives, serial/parallel ports
TRANSMISSION PARAMETERS					
Mode	Full-duplex	Full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Synchronous	Synchronous	Synchronous	Synchronous	Async./sync.
Communications protocol	Paradyne SDLC	Paradyne SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC	ASCII/BSC/SNA/SDLC
Code	ASCII/EBCDIC	ASCII/EBCDIC	EBCDIC	EBCDIC	EBCDIC/ASCII
Speed, bits/second	Up to 256KB	Up to 256KB	1200-9600; 2.54MHz	1200-9600; 2.54MHz	1200-9600; 2.54 MHz
Format	Block	Block	Block	Block	Block
Multipoint operation	Std.	No	Std.	Std.	Std.
Terminal interface	RS-232-C	RS-232-C	Coax A (3270)	Coax A (3270)	Coax A (3270)
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	3,100	2,400	1,045	1,995	2,500
Controller, purchase	4,300	4,300	—	—	—
Monthly prime-shift maintenance	32	23	—	—	—
Annual prime-shift maintenance	384	276	110-134	135-184	—
Date of announcement	February 1985	February 1985	December 1982	January 1985	September 1983
Date of first production delivery	March 1985	March 1985	January 1983	February 1985	November 1983
Display units installed to date	400	300	—	—	—
Serviced by	Paradyne	Paradyne	Third party	Third party	Third party
COMMENTS	When connected to Paradyne's PIX, all devices appear as local channel attached; multiple protocols in controller allow multiple host access	When connected to Paradyne's PIX, all devices appear as local channel attached; multiple protocols in controller allow multiple host access	Lightweight (31 pounds); designed for user maintenance; DIN compatible; auto video shut-down; IBM compatible	DIN ergonomics standard; screen save features; IBM compatible	Designed for user maintenance; modular design; ergonomic features; DIN compatible; auto video shutdown; compatible with IBM PC; parallel printer port

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VENDOR AND MODEL	Plessey PT-220	Plessey PT-100B	Prime PT 200	RCA VP-3301/VP-3303	RCA VP-4801
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	1	2
Transportability	No	No	No	Briefcase	Briefcase
IBM compatibility	No	No	IBM PC	—	—
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	DEC VT220/VT100, ANSI X3.64	DEC VT100	Prime	—	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920, 3,168	1,920, 3,168	2,000, 3,696	960	1,920
Memory capacity, no. char./lines/pages	—	—	512K—1024K	—	1 page
Screen arrangement, lines x char./line	24x80/132	24x80/132	25x80, 28x132	24x40, 12x20	24x40
Screen area (diagonal), inches	12	12	14	—	12
Tilt/swivel screen	Std.	No	Tilt	Opt.	No
Total displayable symbols	128	96 ASCII	256 ASCII	95 ASCII	95 ASCII
Symbol formation	7x10 in 10x10 cell	7x9 dot matrix	7x9/5x7 dot matrix	6x8 dot matrix	7x8 dot matrix
Character phosphor	P4 white std.; P31 grn., P22 amb. opt.	Green, amber, or white	White, amber, or green	—	P31 green
Color capability	No	No	Opt.	8 colors NTSC	No
Graphics	Line drawing std.	Graphics char. set	Opt.	—	—
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	No	No
Blink	Std.	Std.	Std.	Std.	Std.
Blank	No	No	Std.	Std.	Std.
Bold	Std.	Std.	Dim std.	No	No
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	Std.	No	Std.	No
Scroll	Smooth/jump	Smooth	Jump/smooth std.	Up std.	Smooth
Paging	No	No	2 std.	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Std.	Std.	Std.	Both	Both
Protected format	No	No	Std.	No	No
Partial screen transmit	Std.	Std.	Std.	No	—
Split screen/windows	Std.	Std.	No	No	—
Tabulation	Std.	Std.	Fwd./back std.	Fwd. std.	Fwd./back opt.
Character insert/delete	No	No	Std.	Std.	Std.
Line insert/delete	No	No	Std.	No	No
Erase	Std.	Std.	Char./line/field/ screen std.	Line, screen std.	Line, screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter, membrane	Typewriter, membrane
Character/code set	ASCII	ASCII	256 ASCII	128 ASCII	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	4 std.	4 std.	26 std.	No	8 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	Std.	Std.
Port for cust.-supplied devices	Std.	No	No	Std.	Std.
Other vendor-supplied devices	—	No	Video printer ports	No	Acoustic coupler
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII/ANSI	ASCII	Xon/Xoff	—	ASCII
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	75-19,200	50-19,200	50-19,200	110-19,200	110-9600
Format	Character	Character	Char./block	Character	Character
Multipoint operation	No	No	No	No	Std.
Terminal interface	RS-232-C or 20mA	RS-232-C std.; 20mA opt.	RS-232-C/CCITT V.24	RS-232-C	RS-232-C, 20mA, or parallel
Integral modem	No	No	No	No	Std.
Integral acoustic coupler	No	No	No	No	Opt.
PRICING AND AVAILABILITY					
Display station, purchase	Contact vendor	Contact vendor	995	439/449	498
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	10	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	1984	—	January 1985	April 1981	June 1983
Date of first production delivery	1984	—	February 1985	April 1981	September 1983
Display units installed to date	—	—	Over 30,000	Over 5,000	—
Serviced by	Plessey	Plessey	Prime	Factory	Factory
COMMENTS			Tek 4010/4014 graphics emulator, IBM PC compatible		Built in 300 bps direct connect modem autodial, auto logon capability, password protection

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VENDOR AND MODEL	RCA VP-5801	RCA VP-6000	RCA VP-7000	Soroc Challenger 530	Soroc Challenger 540
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	2	2	3	—	—
Transportability	Briefcase	Briefcase	Briefcase	No	No
IBM compatibility	No	—	—	No	No
Teletype compatibility	Std.	Std.	No	Std.	Std.
Other compatibility	ADDS VP, Texas Instruments	DEC VT52, TVI	NAPLES	Lear Siegler ADM 3	Basic IV, Alpha Micro
DISPLAY PARAMETERS					
Display capacity, no. of char.	960, 1,920	1,920	960	1,920	1,920
Memory capacity, no. char./lines/pages	1 page	12.5 pages std.	1 page	1 page	1 page
Screen arrangement, lines x char./line	24x40/80, opt. status line	24x80, opt. status line	24/40x80	24x80 plus status line	24x80 plus status line
Screen area (diagonal), inches	12	—	—	12	12
Tilt/swivel screen	No	—	—	Std.	Std.
Total displayable symbols	—	100	94 & NAPLES graph.	128	128
Symbol formation	7x8 dot matrix	5x7 dot matrix	5x7 dot matrix	5x9 dot matrix	5x9 dot matrix
Character phosphor	P31 green	—	—	P31 green std.	P31 green std.
Color capability	No	No	16 colors fm 4,096	No	No
Graphics	2x3 block matrix	Line, thin or wide	Std NAPLES	Std.	Std.
Programmable field/char. highlighting via:					
Underline	No	No	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	No	Std.	Std.	Std.
Bold	No	No	Std.	No	No
Reverse	—	—	Std.	Std.	Std.
Double size	No	Std.	Std.	No	No
Scroll	—	No	Std.	Up std.	Up std.
Paging	No	—	No	No	No
Selectable cursor blinking	Std.	No	Std.	Std.	Std.
Addressable/readable cursor	Both	Both std.	Std.	Both std.	Both std.
Protected format	No	—	Std.	Std.	Std.
Partial screen transmit	No	No	Std.	Std.	Std.
Split screen/windows	No	No	No	No	No
Tabulation	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std	Std.	No	Std.	Std.
Erase	Chsr./line/screen	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	64 ASCII	ASCII	ASCII	128 ASCII	128 ASCII
Detachability	Std.	Std.	No	Std.	Std.
Program function keys	8 std.	8 user programmable	16 downloadable	14 std.	16 std.
Numeric keypad	Std.	Std.	No	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	Supported	—	No	No
Line printer, type, and speed	No	Supported	Centronics type	No	No
Composite video	No	Std.	RGB/composite video	No	No
Port for cust.-supplied devices	No	—	No	Std.	Std.
Other vendor-supplied devices	Acoustic coupler	Mag card reader, memory card interface	Mag card reader, memory card interface, speaker phone	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	—	—	—	ASCII	ASCII
Code	ASCII	ASCII	ASCII/NAPLES	ASCII	ASCII
Speed, bits/second	Up to 9600	Up to 9600	Up to 19.2K	110-36,400	110-36,400
Format	Character	Character	Character, NAPLES	Char./line/block	Char./line/block
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C	RS-232-C	RS-232-C	RS-232-C or 20mA	RS-232-C or 20 mA
Integral modem	Std.	Std.	Std.	Opt.	Opt.
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	698	798	798	595	895
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	November 1984	January 1987	—	January 1983	June 1983
Date of first production delivery	January 1985	February 1987	June 1986	January 1983	June 1983
Display units installed to date	—	—	—	—	—
Serviced by	Factory	Factory	Factory	Soroc	Soroc
COMMENTS	Built-in 1200/300 bps direct connect modem; auto dial, auto logon capability, password protection	Unattended send, answer auto logon, auto dial, off line editing	Full SRM NAPLES color graphics, ANSI X3.110, directory 99 entry with programming via card reader or menus, speakerphone		

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VENDOR AND MODEL	Soroc Challenger 525	Tandem 6530 Family	Tandy DT-100	Tatung TVT-7220	Tatung TVT-7220+
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	No
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	TeleVideo 925	Tandem	DEC VT100, ANSI X3.64	DEC VT200/VT102 VT100/VT52	DEC VT200/VT102 VT100/VT52
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	2,000	1,920, 3,168	1,920 3,168	2,000-3,300
Memory capacity, no. char./lines/pages	1 page	Up to 8 pages	—	Up to 4 pages	Up to 4 pages
Screen arrangement, lines x char./line	24x80 plus status line	25 x 80	24x80/132	24x80/132	24x80/132
Screen area (diagonal), inches	12	9(30)/12(31)/15(32)	14	14	14
Tilt/swivel screen	Std.	Std.(30); Opt.	Std.	Both std.	Both std.
Total displayable symbols	128	128 ASCII	128 ASCII	256 & 33	256 & 33
Symbol formation	5x9 dot matrix	7x9 dot matrix	—	7x9 dot matrix	7x13 dot matrix
Character phosphor	P31 green std.	P31 green	White	P31 green std.; H10 amber opt.	P31 green std.; H10 amber opt.
Color capability	No	No	No	No	No
Graphics	Std.	No	No	Opt.	Opt.
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	No	Std.	Std.
Blank	Std.	Std.	No	Std.	Std.
Bold	No	Std.	Dim std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	Std.	Std.
Scroll	Up std.	Std.	Std.	Up/down, smooth	Up/down, smooth
Paging	No	Std.	No	1 std.; 4 opt.	1 std.; 4 opt.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Std.	Std.	Both std.	Both std.
Protected format	Std.	Std.	No	Std.	Std.
Partial screen transmit	Std.	Std.	No	No	Std.
Split screen/windows	No	No	No	Split screen std.	Split screen std.
Tabulation	Fwd./back std.	Std.	Std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	No	Std.	Std.
Line insert/delete	Std.	Std.	No	Std.	Std.
Erase	Char./line/screen std.	—	Std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter (DEC VT220 style)	Typewriter, data entry	Typewriter, data entry
Character/code set	128 ASCII	ASCII	ASCII	ASCII	ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	20 std.	16 std.	16 std.	15 std.	15 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	Std.	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	—	Std.	Std.	Std.
Other vendor-supplied devices	—	—	—	No	No
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Async./sync.	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII	ASCII	ASCII/ANSI	ASCII/ANSI	ASCII/ANSI
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	110-36,400	50-19,200	Up to 19,200	75-19,200	75-19,200
Format	Char./line/block	Char./block	Character	Character	Character
Multipoint operation	No	Std.	No	No	No
Terminal interface	RS-232-C or 20 mA	RS-232-C or 20mA	RS-232-C	RS-232-C/20mA; RS-422/423 opt.	RS-232-C/20 mA; RS-422/423 opt.
Integral modem	Opt.	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	895	1,950-2,300	795	599	629
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	18	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	May 1984	March 1982	July 1984	October 1984	June 1985
Date of first production delivery	May 1984	April 1982	July 1984	July 1985	June 1985
Display units installed to date	—	—	—	—	—
Serviced by	Soroc	Tandem	Radio Shack	Tatung Co. of America	Tatung Co. of America
COMMENTS		For use with Tandem NonStop Systems; three models available: 6530, 6531, & 6532	Available at selected Radio Shack stores & dealers; for use with Model 16 computer running TRS-XENIX	Fully DEC down line loadable & compose character	Enhanced features

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VENDOR AND MODEL	Tatung TVT-7261	TEC ET80/ET100	TEC 630	TEC DP-84	Tektronix 4025A
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	Portable	No
IBM compatibility	3101	No	No	No	No
Teletype compatibility	Std.	Std.	Std.	No	Std.
Other compatibility	TVI 910/912/920/925 ADDS V A2; WY-50+	TEC 70; DEC VT100 (ET100 only)	Upon request	See comments	DEC VT100 opt.
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,000/3,300	2,000	2,000	1,280	2,720
Memory capacity, no. char./lines/pages	Up to 4 pages	5 pages	Up to 4 pages	80/24/1	16K/400/12 total
Screen arrangement, lines x char./line	26x80/132	24x80 plus status line	25x80	16x80 (scrollable)	34x80
Screen area (diagonal), inches	14	15	12	2.75 in. x 9.3 in.	12
Tilt/swivel screen	Both std.	Std.	Opt.	No (lap)	No
Total displayable symbols	128 + 46 + 48	256	128	95 ASCII/32 graph.	96 std.
Symbol formation	7x13 dot matrix	7x12 dot matrix	6x8 dot matrix	5x7	7x9 dot matrix
Character phosphor	P31 green std.; H10 amber opt.	Black on white background	P4 white std.; P31 green opt.	Liquid crystal display (LCD)	P39 green
Color capability	No	No	No	No	No
Graphics	Opt.	No	No	Std. (VT100 comp.)	Std.
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	No	Reduced std.	No	No
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	Std.	No	Std.	No
Scroll	Up/down, smooth	Up/down/jump/sm.	Std.	Up/down, right/left	Up/down std.
Paging	1 std.; 4 opt.	Std.	2/4 opt.	No	Std.
Selectable cursor blinking	Std.	Std.	Std.	Std.	No
Addressable/readable cursor	Both std.	Std.	Both std.	Std.	Both std.
Protected format	Std.	Std.	Std.	No	Std.
Partial screen transmit	Std.	Std.	Std.	No	Std.
Split screen/windows	Split screen std.	Std.	Std.	Std.	Std.
Tabulation	Fwd./back std.	Std.	Fwd./back/auto	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	No	Std.
Line insert/delete	Std.	Std.	Std.	No	Std.
Erase	Char./line/screen std.	Std.	Line/page/screen/ memory std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter, data entry	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	ASCII	256 ASCII	128 ASCII	95 ASCII/32 graph.	ASCII
Detachability	Std.	Std.	Std.	No	Std.
Program function keys	12 std.	18 std.	6 std.	Std.	20 plus all keys std.
Numeric keypad	Std.	Std.	Opt.	Opt.	
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	Serial opt.
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	Opt.	No	Std.
Port for cust.-supplied devices	Std.	Std.	Std.	Std. (printer)	Std.
Other vendor-supplied devices	No	Card reader/writer	Mag. card reader/ writer	—	Tape, plotters
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Full/std.; half/opt.
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII/ANSI	ASCII	—	Async./ASCII	ASCII
Code	ASCII	ASCII	ASCII	ASCII/ANSI X3.64	ASCII
Speed, bits/second	50-38,400	Up to 19,200	110-9600	Up to 19,200	75-9600
Format	Char./line/block	Char./block/line	Char./line/block	Character	Char./block
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C/20 mA; RS-422/423 opt.	RS-232-C std.; 20/60mA opt.	RS-232-C std.; 20 mA opt.	RS-232-C	RS-232-C or 20mA
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	Opt.	No
PRICING AND AVAILABILITY					
Display station, purchase	629	1,975	1,475-1,995	995	5900
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	7
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	June 1985	May 1981	March 1981	July 1984	1977
Date of first production delivery	June 1985	January 1982	May 1981	November 1984	1977
Display units installed to date	—	—	—	—	—
Serviced by	Tatung Co. of America	TEC	TEC	Factory	Tektronix
COMMENTS	Multiple keyboards IBM 3161/3163; DEC VT220; IBM PC/PC AT	ET100 features vertical scrolling to display 132-character lines	Available in rack-mount or mag card reader/writer versions	Emulations include: DEC VT100/VT52, TeleVideo 910, Lear Siegler ADM 3A & ADM 5, Hazeltine (Esprit) 1400 & 1410, ADDS Regent 20 & Regent 25	Updated to 4025A in 1981 w/new features, 3X speed, 4027A color terminal also available

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VENDOR AND MODEL	Tektronix 4100 Series	Telegenix TDS 2070	Telegenix TDS 2000	Telegenix TDS 2200	Teleray Model 7
TERMINAL DESCRIPTION					
Standalone or cluster	Either	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	Opt.	Opt.	Opt.	No
IBM compatibility	No	No	No	No	No
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	DEC VT100	ANSI X3.64	ANSI X3.64	ANSI X3.64	See comments
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,560	64-1,920	32-1,920	16-1,920	1,920
Memory capacity, no. char./lines/pages	To 256K	1 page	1 page	1 page	3,840 char.
Screen arrangement, lines x char./line	30/32x80	Custom (.7-inch character)	Custom (1-inch character)	Custom (2-inch character)	24x80 or user-def. plus status line
Screen area (diagonal), inches	13, 19 model dep.	Various	Various	Various	14; 9 & 12 opt.
Tilt/swivel screen	Opt.	Opt.	Opt.	Opt.	Std.
Total displayable symbols	224 ASCII	68 ASCII	68 ASCII	68 ASCII	256, w/128 ASCII
Symbol formation	6x9/8x14 dot matrix	Segmented 16-stroke	Segmented 16-stroke	Segmented 16-stroke	8x10 dot matrix
Character phosphor	P22 color	Neon orange (plasma)	Neon orange (plasma)	Neon orange (plasma)	Green, amber, or soft white
Color capability	8 colors std.	No	No	No	No
Graphics	Std.	No	No	No	Opt.
Programmable field/char. highlighting via:					
Underline	Std.	No	No	No	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Dim std.
Reverse	Std.	No	No	No	Std.
Double size	Std.	No	No	No	Std.
Scroll	Std.	4-way std.	4-way std.	4-way std.	Up/down/horiz./sm.
Paging	Std.	1 std.	1 std.	1 std.	2 std.; 4 opt.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Addressable only	Addressable only	Addressable only	Both std.
Protected format	No	No	No	No	Std.
Partial screen transmit	No	No	No	No	Std.
Split screen/windows	Std.	Unlimited	Unlimited	Unlimited	Std.
Tabulation	Fwd./back std.	Forward std.	Forward std.	Forward std.	Fwd./back std.
Character insert/delete	Std.	No	No	No	Std.
Line insert/delete	Std.	No	No	No	Std.
Erase	Std.	Char./line/screen	Char./line/screen	Char./line/screen std.	Char./line/screen/ memory std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter (opt.)	Typewriter (opt.)	Typewriter (opt.)	Typewriter
Character/code set	ASCII	68 ASCII	68 ASCII	68 ASCII	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	Std.	15 std.	15 std.	15 std.	32/64 user-defin.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	Opt.
Port for cust.-supplied devices	Std.	Opt.	Opt.	Opt.	Std.
Other vendor-supplied devices	—	Ceiling, floor, & wall mounts	Ceiling, floor, & wall mounts	Ceiling, floor, & wall mounts	—
TRANSMISSION PARAMETERS					
Mode	Full-duplex	Simplex	Simplex	Simplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII	Start-stop	Start-stop	Start-stop	ASCII/ANSI
Code	ASCII	ASCII-77	ASCII-77	ASCII-77	ASCII
Speed, bits/second	Up to 38,400	Up to 9600	Up to 9600	Up to 9600	50-19,200
Format	Character	Character	Character	Character	Char./line/block
Multipoint operation	No	Std.	Std.	Std.	No
Terminal interface	RS-232-C, Centronics	RS-232-C std.; 20mA opt.	RS-232-C std.; 20mA opt.	RS-232-C std.; 20mA opt.	RS-232-C/RS-422 20mA opt.
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	3,995-9,950	2,400-29,500	3,000-55,000	4,000-88,000	1,095
Controller, purchase	—	Included	Included	Included	—
Monthly prime-shift maintenance	—	Various	Various	Various	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	April 1983	October 1985	February 1982	July 1985	November 1984
Date of first production delivery	October 1983	1986	October 1984	November 1985	December 1984
Display units installed to date	—	See comments	See comments	See comments	—
Serviced by	Tektronix	Telegenix & third party	Telegenix & third party	Telegenix & third party	Teleray
COMMENTS	132-character mode through vertical scrolling	Over 15,000 plasma gas discharge displays of various sizes installed throughout the U.S. Canada, Europe, & Saudi Arabia; each display is custom built (within certain parameters)	Over 15,000 plasma gas discharge displays of various sizes installed throughout the U.S. Canada, Europe, & Saudi Arabia; each display is custom built (within certain parameters)	Over 15,000 plasma gas discharge displays of various sizes installed throughout the U.S. Canada, Europe, & Saudi Arabia; each display is custom built (within certain parameters)	Multiprotocol

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VENDOR AND MODEL	Teleray Model 20-DDG	Teleray Model 20-DHP	Teleray Model HON 5	Teleray Model HON 6	Teleray Model HON 7
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	No
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	Data General D210/211, DEC 220	DEC VT220, H-P HP2392A, ANSI	Honeywell HDS 2/5, VIP 7305, DEC VT102	Honeywell VIP 7813/7801, DEC VT102	Honeywell VIP & HDS, DEC VT102
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920-3,168	1,920-3,168	1,920-3,168	1,920-3,168	1,920-3,168
Memory capacity, no. char./lines/pages	3,840 char.	15,360 char.	5,760 char.	5,760/3,840 char.	5,760 char.
Screen arrangement, lines x char./line	24x80/132 plus status line	24x80/132	24x80/132	24x80/132	24x80/132
Screen area (diagonal), inches	14; 9 & 12 opt.	14; 9 & 12 opt.	14; 9 & 12 opt.	14; 9 & 12 opt.	14; 9 & 12 opt.
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	384	317	255	255128	2556
Symbol formation	8x10 dot matrix	8x10 dot matrix	8x10 dot matrix	8x10 dot matrix	8x10 dot matrix
Character phosphor	Green, amber, or soft white	Green, amber, or soft white	Green, amber, or soft white	Green, amber, or soft white	Green, amber, or soft white
Color capability	No	No	No	No	No
Graphics	Opt.	Opt.	Opt. Tek 4014 comp.	Opt. Tek 4014 comp.	Opt. Tek 4014 comp.
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Dim/bold	Dim/bold	Dim/bold	Dim/bold	Dim/bold
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	Std.	Std.	Std.	Std.
Scroll	Horiz./vert./smooth	Up/down/horiz./sm.	Vert./horiz/smooth	Horiz/vert./smooth	Horiz,vert, smooth
Paging	2 std.	8 - 80 col., 1-132	3 std.	3 std.	72x80 or 43x132
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	Std.	Std.	Std.	STd.	Std.
Tabulation	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Char./line/screen/memory std.	Char./line/screen/memory std.	Char./line/screen/memory std.	Char./line/screen/memory std.	Char./line/screen/memory std.
KEYBOARD PARAMETERS					
Style	Typewriter, 106 recodable keys	Typewriter, 106 recodable keys	Typewriter	Typewriter	Typewriter, 113 key recodable
Character/code set	128 ASCII	128 ASCII	128 ASCII	128 ASCII	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	20 user-definable, 12 opt.	32 std.	32 std.	32 std.	16 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	Opt.	Opt.	Opt.	Opt.	Opt.
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	—	—	—	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Async/sync
Communications protocol	ANSI/DG	ANSI/HP	ANSI/Honeywell	ANSI/Honeywell	ANSI/Honeywell
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	50-19,200	50-19,200	50-19,200	50-19,200	50-19,200
Format	Char./line/block	Char./line/block	Char./line/block	Char./line/block	Char./line/block
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C/ RS-422	RS-232-C/RS-422 std., 20mA opt.	RS-232-C/RS-422 std.; 20mA opt.	RS-232-C/RS-422 std., 20mA opt.	RS-232-C/RS-422 std., 20mA opt.
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,195	1,295	1,295	1,5195	1,295
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	November 1984	June 1986	December 1985	January 1986	January 1987
Date of first production delivery	December 1984	August 1986	January 1986	March 1986	February 1987
Display units installed to date	—	—	—	—	—
Serviced by	Teleray	Honeywell	Honeywell	Honeywell	Honeywell
COMMENTS	Multiprotocol	Multiprotocol	Multiprotocol	Multiprotocol	Multiprotocol

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VENDOR AND MODEL	TeleVideo 905	TeleVideo 955	TeleVideo 9220	Telex 078	Telex 079
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Cluster	Cluster
Maximum displays/controller	—	—	—	32	32
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	3178/3278	3179/3279
Teletype compatibility	Std.	Std.	No	No	No
Other compatibility	See comments	—	DEC VT220/100/VT52	—	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	1,920	1,920	1,920	1,920
Memory capacity, no. char./lines/pages	1 page	4 pages	—	—	—
Screen arrangement, lines x char./line	24x80	24x80/132	24x80/132, plus status line	24x80	24x80
Screen area (diagonal), inches	14	14	14	12	12
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	128 ASCII	128 ASCII	128	96 EBCDIC	96 EBCDIC
Symbol formation	6x8 dot matrix	10x7 dot matrix	5x7 dot matrix	9x12 in 9x16 cell	9x12 in 9x16 cell
Character phosphor	P31 green or amber	P31 green or amber	P31 green	Green or amber	Color
Color capability	No	No	No	No	4/7 colors
Graphics	No	15 graphics symbols	DEC compatible	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Opt.	Opt.
Blink	Std.	Std.	Std.	Opt.	Opt.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	No	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	Std.	No	No
Scroll	Up/down std.	Up/down std.	Up/down std.	No	No
Paging	No	4 std.	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Std.	Both std.	Both std.
Protected format	Std.	Std.	No	Std.	Std.
Partial screen transmit	Std.	No	Std.	Std.	Std.
Split screen/windows	No	No	3 std.	No	No
Tabulation	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	No	No
Erase	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./screen std.	Char./screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter, data entry, APL	Typewriter, data entry, APL
Character/code set	128 ASCII	128 ASCII	128 ASCII	EBCDIC	EBCDIC
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	16 std.	64 std.	30 non-volatile	24 std. (typewriter only)	24 std. (typewriter only)
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	30-240 cps impact	Std.	Std.
Line printer, type, and speed	No	No	No	Std.	Std.
Composite video	Opt.	Opt.	Std.	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	—	—	—	Security keylock, numeric lock, audible alarm, auto dimming screen	Security keylock, numeric lock, audible alarm, auto dimming screen
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half-duplex	Half-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Synchronous	Synchronous
Communications protocol	—	—	ASCII/ANSI X3.64	BSC, SNA/SDLC	BSC, SNA/SDLC
Code	ASCII	ASCII	ASCII	EBCDIC	EBCDIC
Speed, bits/second	50-19,200	50-19,200	50-19,200	Up to 19,200	Up to 19,200
Format	Char./line/block	Char./line/block	Character	Block	Block
Multipoint operation	No	No	No	Std.	Std.
Terminal interface	RS-232-C	RS-232-C	RS-232-C std.; RS-422 or 20mA opt.	Coaxial	Coaxial
Integral modem	No	Opt.	Opt.	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	409	629	619	1,550	1,895
Controller, purchase	—	—	—	4,500-13,950	4,500-13,950
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	July 1985	April 1985	1985	August 1984	August 1984
Date of first production delivery	July 1985	April 1985	1985	August 1984	August 1984
Display units installed to date	—	—	—	—	—
Serviced by	GE Instr. & Comm.	GE Instr. & Comm.	GE Instr. & Comm.	Telex	Telex
COMMENTS	Emulations include: ADDS Regent 25 & Viewpoint A2, Lear Siegler, Hazeltine, TeleVideo 910, 910+, & 925			Part of TC 270 Information Display System; attaches to 076, 174 & 274 controllers, 276 control/display, & equivalent IBM controllers	Part of TC 270 Information Display System; attaches to 076, 174 & 274 controllers, 276 control/display, & equivalent IBM controllers

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VENDOR AND MODEL	Telex 080	Telex 179	Telex 180-1	Telex 078-2	Telex 079-2
TERMINAL DESCRIPTION					
Standalone or cluster	Cluster	Cluster	Cluster	Cluster	Cluster
Maximum displays/controller	32	32	32	—	—
Transportability	No	No	No	No	No
IBM compatibility	3278	3179	3180-1	Comparabble to 3196	3179-2
Teletype compatibility	No	No	No	—	—
Other compatibility	—	—	—	—	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920-3,564	1,920-3,440	1,920-3,564	1,920	1,920
Memory capacity, no. char./lines/pages	—	—	—		
Screen arrangement, lines x char./line	24/32/43x80, 27x132	24/32/43x80	24/32/43x80, 27x132	24x80	24x80,
Screen area (diagonal), inches	15	14	15	12	12
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	96 EBCDIC	96 EBCDIC	96 EBCDIC		
Symbol formation	Various	Various	Various	9x12 in 9x16 cell	9x14 in 9x16 cell
Character phosphor	Green or amber	Color	Green or amber	Green or amber	Color
Color capability	No	7 colors	No	No	4 std, 7 opt.
Graphics	No	No	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	No	No
Scroll	No	No	Std.	No	No
Paging	No	No	No	—	—
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	—	—
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	No	No
Split screen/windows	No	No	No	No	No
Tabulation	Fwd./back std.	Fwd./back std.	Fwd./back std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	No	No	No	No	No
Erase	Char./screen std.	Char./screen std.	Char./screen std.	Character	Char./screen std.
KEYBOARD PARAMETERS					
Style	Typewriter, data entry, APL	Typewriter, data entry	Typewriter, data entry	Typewriter/numeric	Typewriter, numeric (122 key)
Character/code set	EBCDIC	EBCDIC	EBCDIC/Internat.	—	—
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std. (typewriter only)	24 std. (Typewriter only)	24 std.	No	No
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	Std.	Std.	Std.	214 XP (4000 cps)	214XP 400 cps
Line printer, type, and speed	Std.	Std.	Std.	225, 600/800 lpm	225 600/800 lpm
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	—	—
Other vendor-supplied devices	Security keylock, numeric lock, audible alarm, auto dimimming screen	Security keylock, numeric lock, audible alarm	Security keylock, numeric lock, audible alarm, auto dimming screen	Screen printer	Screen printer
TRANSMISSION PARAMETERS					
Mode	Half-duplex	Half-duplex	Half-duplex	Twinax protocol	Twinax Protocol
Technique	Synchronous	Synchronous	Synchronous	—	—
Communications protocol	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC	—	—
Code	EBCDIC	EBCDIC	EBCDIC	—	—
Speed, bits/second	Up to 19,200	Up to 19,200	Up to 19,200	—	—
Format	Block	Block	Block	—	—
Multipoint operation	Std.	Std.	Std.	—	—
Terminal interface	Coaxial	Coaxial	Coaxial	—	—
Integral modem	No	No	No	—	—
Integral acoustic coupler	No	No	No	—	—
PRICING AND AVAILABILITY					
Display station, purchase	1,995	2,295-2,995	2,095	1,295	1,895
Controller, purchase	4,500-13,950	4,500-13,000	4,500-13,950	—	—
Monthly prime-shift maintenance	—	14	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	1984	1984	June 1982	November 1986	November 1986
Date of first production delivery	1984	1984	—	—	—
Display units installed to date	—	—	—	—	—
Serviced by	Telex	Telex	Telex	Telex	Telex
COMMENTS	Part of TC 270 Information Display System; attaches to 076, 174 & 274 controllers, 276 control/display, & equivalent IBM controllers	Part of TC 270 Information Display System; attaches to 076, 174 & 274C controllers, 276 control/display, & equivalent IBM controllers	Part of TC 270 Information Display System; attaches to 076, 174 & 274 controllers, 276 control/display, & equivalent IBM controllers	System/3X terminal; Auto dimming screen, security lock, adjustable audible alarm, keystroke record/playback, row/column indicator	System/3X terminal; auto dimming screen, System; attaches to security keylock, adjustable audible alarm, keystroke record/playback, row/column indicator

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VENDOR AND MODEL	Telex 179-2	Telex 180-2	Telex 078-A	Telex 080-A	Term-Tronics M-178
TERMINAL DESCRIPTION					
Standalone or cluster	Cluster	Cluster	Cluster	Cluster	Cluster
Maximum displays/controller	—	—	48	48	32
Transportability	No	No	No	No	Handcarry (25 lbs.)
IBM compatibility	3179-2	3180-2	ALC, 3270 BSC & SNA	ALC, BSC, SNA	3178/3278-2
Teletype compatibility	—	—	No	No	Opt.
Other compatibility	—	—	—	—	IBM 3101-20
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	1,920, 3,564	1,920, 960 parti.	2,160/2,176/2,720	1,920
Memory capacity, no. char./lines/pages	—	—	48 pages	8 pages	
Screen arrangement, lines x char./line	24x80	24x80, 27x132	24x80, 30x64	64x34, 80/27x132	24x80 plus status line
Screen area (diagonal), inches	14	15	12	15	12
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	—	—	128 ASCII	128 ASCII	96 EBCDIC/ASCII
Symbol formation	7x9 in 9x16 cell	Various	Various	Various	9x14 dot matrix
Character phosphor	Color	Green or amber	Green or amber	Green or amber	P39 green/amber
Color capability	4 std., 7 opt.	No	No	No	No
Graphics	No	No	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Opt.
Double size	No	No	No	No	No
Scroll	No	No	Up/down std.	Up/down std.	No
Paging	—	—	2 pgs ea. partition	2 pgs./partition	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	—	—	Both std.	Both std.	Std.
Protected format	Std.	Std.	No, except 3270	No, except 3270	Std.
Partial screen transmit	No	No	No	No	Std.
Split screen/windows	No	No	2 std.	2 or 4 std.	No
Tabulation	Std.	Std.	Fwd/back. std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	No	No	Std.	Std.	No
Erase	Character	Character	Std.	Std.	Std.
KEYBOARD PARAMETERS					
Style	Typewriter, numeric	Typewriter, numeric	—	Other	Typewriter
Character/code set	—	—	128 ASCII	128 ASCII	96 EBCDIC
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	No	No	20 std.	20 std.	24 std.
Numeric keypad	Std.	Std.	Std. on 109 keybd.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	214 XP (400 cps)	214XP (400 cps)	Various	Various	160 cps impact
Line printer, type, and speed	225 (600/800 lpm)	225 (600/800 lpm)	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	—	—	Std.	Std.	Opt.
Other vendor-supplied devices	Screen printer	Screen printer	Mag card reader	Mag card reader	Laser scanners, printers
TRANSMISSION PARAMETERS					
Mode	Twinax protocol	Twinax protocol	Full-duplex	Full-duplex	Half-duplex
Technique	—	—	Synchronous	Synchronous	Synchronous
Communications protocol	—	—	ALC, SNA, BSC	ALC, SNA, BSC	BSC, SNA/SDLC
Code	—	—	ASCII	ASCII	EBCDIC/ASCII
Speed, bits/second	—	—	9600 bps	9600 bps	Channel speed
Format	—	—	Character	Character	Block
Multipoint operation	—	—	Std.	Std.	Std.
Terminal interface	—	—	RS-232-C	RS-232-C	RG62A/U coax (Type A) & twisted-pair
Integral modem	—	—	No	No	Opt.
Integral acoustic coupler	—	—	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	2,095	1,995	Contact vendor	Contact vendor	995
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	6.50
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	November 1986	November 1986	—	—	August 1984
Date of first production delivery	—	—	—	—	August 1984
Display units installed to date	—	—	—	—	—
Serviced by	Telex	Telex	Telex	Telex	TTI (over 130 locations)
COMMENTS	System/3X terminal; auto dimming screen, System; attaches to security keylock, adjustable audible alarm, keystrock recoed/playback, row/column indicator	System/3X terminal; auto dimming screen, security keylock, adjustable audible alarm, keystroke record/playback, row/column indicator	Airline sustems automation terminal; auto dimming screen	Airline systems automation terminal; auto dimming screen, security keylock	Miracle-178D—w/opt .screen printer port; Miracle-178P— w/opt. 3287 sys. printer port; Miracle-178/101— w/opt. 3101 ASCII printer port; cluster controllers available

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VENDOR AND MODEL	Term-Tronics M-179	Term-Tronics M-180	Term-Tronics M-191	Texas Instruments 931	Texas Instruments 924
TERMINAL DESCRIPTION					
Standalone or cluster	Cluster	Cluster	Cluster	Standalone	Standalone
Maximum displays/controller	32	32	32	—	—
Transportability	39 lbs.	33 lb.	Hand carry (24 lb)	No	No
IBM compatibility	3179	3180	3191/3178/3278-2	No	No
Teletype compatibility	No	No	No	Std.	Std.
Other compatibility	—	—	—	—	DEC VT100/TI 931
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920 see comments	1,920-3,564	1,920	2000	1,920/3,168
Memory capacity, no. char./lines/pages	—	—	—	1 page	1page
Screen arrangement, lines x char./line	24x80 plus status line	24/32/43x80-27x132	24x80 plus status line	25x80	24x80, 24x132
Screen area (diagonal), inches	14	14	12	12	14
Tilt/swivel screen	Std.	Std.	Std.	Tilt std.	Std.
Total displayable symbols	96 EBCDIC/ASCII	96 EBCDIC	96 EBCDIC	128	256
Symbol formation	9x16 dot matrix	9x16 dot matrix	9x16 dot matrix	7x9 dot matrix	10x14 cell
Character phosphor	Color	P39 green/gold	K148 green gold	Green	P31 green
Color capability	4/7 colors	No	No	No	No
Graphics	No	No	No	No	Std.
Programmable field/char. highlighting via:					
Underline	Std.	Std.	No	Std.	Std.
Blink	Std.	Std.	No	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	No	Std.	Std.
Double size	No	No	No	No	Std.
Scroll	No	No	No	Up/down std.	Std.
Paging	No	No	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Std.	Std.	Std.	Both std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	No	No	Std.	Std.
Split screen/windows	No	No	No	No	No
Tabulation	Std.	Std.	Std.	Fwd./back std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	No	Std.	Std.	Std.	Std.
Erase	Std.	Std.	Std.	Char./line/field/ screen std.	Std.
KEYBOARD PARAMETERS					
Style	Typewriter (122-key)	Typewriter (122 key)	Typewriter (122 key)	Typewriter	Typewriter
Character/code set	96 EBCDIC	96 EBCDIC	96 EBCDIC	96 ASCII	256 ISO/ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std.	Std.	Std.td.	12 std.	Std.
Numeric keypad	Std.	Std.	Std.	Std.	12 std.
ANCILLARY DEVICES					
Serial printer, type, and speed	Opt.	160 cps impact	160 cps impact	EIA, 35-150 cps	EIA 30-150CPS
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Opt.	Std.	Std.	Std.,EIA output only	Std. EIA output only
Other vendor-supplied devices	Printers, APL, light pen	—	barcode, light pen, mag card reader	—	—
TRANSMISSION PARAMETERS					
Mode	Half-duplex	Half-duplex	Half-duplex	Full-duplex	Half/full duplex
Technique	Synchronous	Synchronous	Synchronous	Asynchronous	Asynchronous
Communications protocol	BSC, SNA/SDLC	BSC, SNA/SDLC	BSC, SNA/SDLC	TTY	TTY/ANSI
Code	EBCDIC/ASCII	EBCDIC	EBCDIC	ASCII	ASCII/ISO
Speed, bits/second	Channel speed	Channel speed	Channel speed	300-19,200	300-19,200
Format	Block	Block	Block	Character	Character
Multipoint operation	Std.	Std.	Std.	No	No
Terminal interface	RG62A/U coax (Type A) & twisted-pair	Coaxial (RG62AU)	Coaxial (RG62AU)	RS-232-C std.; fiber optics opt.	Rs-232-C
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	2,095	1,895ct vendor	1,095	1,295(EIA); 1,350	795
Controller, purchase	—	3,900-9,900	3,900-9,900	—	—
Monthly prime-shift maintenance	Contact vendor	7	6	19	15
Annual prime-shift maintenance	—	84	72	—	168
Date of announcement	December 1985	September 1986	September 1986	April 1983	March 1986
Date of first production delivery	December 1985	October 1986	October 1986	September 1983	October 1986
Display units installed to date	—	—	—	—	—
Serviced by	Contact vendor	TTI (over 500 locations)	TTI (over 150 locations)	Texas Instruments	Texas Instruments
COMMENTS	Options include: keylock; light pen; printer port; APL keycaps; Model 3 screen format; cluster controllers available	The M-180 provides full 3180 plug-compatibility and is offered with standard screen printer port.	The M-191 is provided with a charge, on-site, 3 yr. warranty; M-191E is an enhanced 3191 plug-compatible terminal that is field upgradable to a 3180 terminal	Can be simultaneously connected to RS-232-C and fiber optics systems; separate buffering for auxiliary support; Int'l keyboards/character sets available	Separate Display and printer buffering, U.L. listed, FCC compliant, Int'l keyboards available, ASCII/ISO 885911 character set, compose mode, downloadable character set avail

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VENDOR AND MODEL	Thomas Engineering TE-780xA	Thomas Engineering TE-780xV	Thomas Engineering TE-780xS	3M Teleterminals Whisper Screen Model 1923	3M Teleterminals Whisper Screen Model 1924
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	Yes	Yes
IBM compatibility	No	No	No	No	No
Teletype compatibility	Std.	Std.	No	Std.	Std.
Other compatibility	Honeywell VIP 7801	Honeywell VIP 7801, DEC VT100/52, ANSI	Honeywell VIP 7814	DEC VT52, VT100	DEC VT52, VT100
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,000	2,000	2,000	1,920	1,920
Memory capacity, no. char./lines/pages	—	—	—	48K std.	24K std., 48K opt.
Screen arrangement, lines x char./line	25x80	25x80	25x80	24x80	24x80
Screen area (diagonal), inches	14	14	14	9	9
Tilt/swivel screen	Std.	Std.	Std.	Tilt std.	Tilt std.
Total displayable symbols	128	128	128	128 ASCII	128 ASCII
Symbol formation	7x9 dot matrix	7x9 dot matrix	7x9 dot matrix	10x12 dot matrix	10x12 dot matrix
Character phosphor	P31 green	P31 green	P31 green	P31 green	P31 green
Color capability	No	No	No	No	No
Graphics	Std. (11 line draw)	Std. (11 line draw)	Std. (11 line draw)	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	No	No
Bold	High/low intensity	High/low intensity	High/low intensity	No	No
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	Std.	Std.
Scroll	Up/down std.	Up/down std.	Up/down std.	No	No
Paging	No	No	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	No	No
Addressable/readable cursor	Both std.	Both std.	Both std.	Addressable only	Addressable only
Protected format	Std.	Std.	Std.	No	No
Partial screen transmit	Std.	Std.	Std.	No	No
Split screen/windows	No	No	No	No	No
Tabulation	Fwd./back std.	Fwd./back std.	Fwd./back std.	Forward std.	Forward std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Line/sreen std.	Line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	128 ASCII	128 ASCII	128 ASCII	128 ASCII	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	12 std.	12 std.	12 std.	12 std.	12 std.
Numeric keypad	Std.	Std.	Std.	Opt.	Opt.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	40 cps thermal	40 cps thermal
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	RS-232-C	RS-232-C
Other vendor-supplied devices	—	—	—	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full duplex	Half/full duplex
Technique	Asynchronous	Asynchronous	Synchronous	Asynchronous	Asynchronous
Communications protocol	TTY	TTY	Honeywell VIP sync.	—	—
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	50-19,200	50-19,200	2400-19,200	1200 (modem) 9600	300 (modem) 9600
Format	Char./text/form	Char./text/form	Char./text/form	Character	Character
Multipoint operation	No	No	No	Std.	Std.
Terminal interface	RS-232-C or 20 mA	RS-232-C or 20 mA	RS-232-C or 20 mA	RS-232-C	RS-232-C
Integral modem	No	No	No	Std.(212A)	Std (212A)
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	1,695	1,895	1,895	1,895	1,895
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	Factory service	Factory service	Factory service	—	—
Annual prime-shift maintenance	Factory service	Factory service	Factory service	265-365 (on-site)	265-365 (on-site)
Date of announcement	December 1982	December 1982	December 1982	December 1985	December 1985
Date of first production delivery	December 1982	December 1982	December 1982	December 1985	December 1985
Display units installed to date	—	—	—		
Serviced by	Thomas Engineering	Thomas Engineering	Thomas Engineering	3M	3M
COMMENTS	U.L. Listed; F.C.C. compliant; fully recessed connectors unlimited visual & logical display attributes; convection cooled; made in U.S.A.; available in TEMPEST version	U.L. Listed; F.C.C. compliant; fully recessed connectors unlimited visual & logical display attributes; convection cooled; made in U.S.A.; available in TEMPEST version	U.L. Listed; F.C.C. compliant; fully recessed connectors unlimited visual & logical display attributes; convection cooled; made in U.S.A.; available in TEMPEST version	$185-$285 per year depot service; user defined forms can be created and stored in (CMOS) RAM	$185-$285 per year depot service; user-defined forms can be created and stored in (CMOS) RAM

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VENDOR AND MODEL	Unisys SVT 1210	Unisys SVT 1220	Unisys SVT 1120	Unisys ET 1100	Unisys PT 1500
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	No
Teletype compatibility	No	No	No	Std.	Std.
Other compatibility	DEC VT52	DEC VT220, VT131	Sperry UTS 20	Burroughs	DEC
DISPLAY PARAMETERS					
Display capacity, no. of char.	3,168	3,168	3,168	2,080	2,320
Memory capacity, no. char./lines/pages	1 page	1 page	1 page	10 pages	4 pages
Screen arrangement, lines x char./line	24x80/132	24x80/132	24x80/132	12/24x40/80 plus 2 status lines	29x80
Screen area (diagonal), inches	12	12	14	14	12
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	96 ASCII/32 graphic	DEC multinat./NRC	ASCII/Sperry nat.	256	480
Symbol formation	7x9 dot matrix	7x9 dot matrix	7x9/5x7 dot matrix	7x9 dot matrix	9x12 cell
Character phosphor	P31 green	P31 green	P31 green	P39 green	P31 green
Color capability	No	No	No	No	No
Graphics	DEC graphics char.	DEC graphics char.	No	No	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	No	Std.	Std.	Std.	Std.
Blank	No	Std.	Std.	Std.	Std.
Bold	No	Std.	Low intensity	Std.	No
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	Std.	No	Std.	No
Scroll	Smooth std.	Var. speed smooth	No	Std.	Up/down std.
Paging	No	No	2 virtual screens	Std.	Application dep.
Selectable cursor blinking	Std.	Std.	No	Std.	Application dep.
Addressable/readable cursor	Both std.	Both std.	Both std.	Std.	No
Protected format	No	No	Std.	Std.	Application dep.
Partial screen transmit	No	Std.	Std.	Std.	Std.
Split screen/windows	2 std.	2 std.	No	No	Std.
Tabulation	Forward std.	Forward std.	Fwd./back std.	Std.	Std.
Character insert/delete	No	No	Std.	Std.	Std.
Line insert/delete	No	No	Std.	Std.	Std.
Erase	Screen std.	Char./line/screen std.	Char./line/screen std.	Line/page std.	Std.
KEYBOARD PARAMETERS					
Style	Typewriter (DEC VT100-style)	Typewriter (DEC VT220-style)	Typewriter (94-key)	Typewriter	Typewriter
Character/code set	ASCII	DEC multinat./NRC	ASCII/Sperry nat.	128 ASCII	ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	26 std.	62 std. (15 user-programmable)	22 std.	10 physical/20 logical	10 std.
Numeric keypad	Std.	Std.	Std.	Std.; 25-key opt.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	160 cps matrix	160 cps matrix	160 cps matrix	Std.	Various
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	—	—	—	Audible alarm	—
TRANSMISSION PARAMETERS					
Mode	Full-duplex	Half/full-duplex	Full-duplex	Half-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Synchronous	Async./sync.	Asynchronous
Communications protocol	TTY	TTY	Uniscope	Burroughs	ASCII
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	Up to 19,200	Up to 19,200	Up to 19,200	Up to 38,400	Up to 19,200/307K
Format	Character	Char./block	Block	Char./block	Char./line/block
Multipoint operation	No	No	Std.	Std.	No
Terminal interface	RS-232-C	RS-232-C	RS-232-C	RS-232-C, TDI, BDAA	RS-232-C or RS-422
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	495	895	795/895	1,580	1,400
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	Various	Various	Various	20.33	14
Annual prime-shift maintenance	Various	Various	Various	126-252	168
Date of announcement	January 1985	May 1985	October 1985	April 1983	October 1984
Date of first production delivery	January 1985	May 1985	October 1985	May 1983	October 1984
Display units installed to date	—	—	—	—	—
Serviced by	Unisys	Unisys	Unisys	Unisys	Unisys
COMMENTS	Formerly marketed under Sperry name	Formerly marketed under Sperry name	Formerly marketed under Sperry name	Formerly marketed under Burroughs name	Requires use of UNIX system; formerly marketed under Burroughs name

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VENDOR AND MODEL	Visual 215	Visual 601	Visual 602	Visual 220	Visual 240
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	No
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	DEC VT220/VT100/VT52	Wyse 50+, ADDS VP, TVI 910/925	DEC VT100, Wyse 50+, ADDS Viewpoint	DEC VT220/VT100/VT52	DEC VT220/VT100/VT52; Tektronix
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920, 3,168	1,920/3,168/6,600	1,920/3,168/6,600	1,920, 3,168	2,320, 3,828
Memory capacity, no. char./lines/pages	1 page	1 page	1 page	4 page	1 page
Screen arrangement, lines x char./line	24x80/132	25x80/132, 50x132	25x80/132, 50x132	24x80/132	29x80/132 plus status line
Screen area (diagonal), inches	14	14	14	14	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	256 ASCII	128 ASCII	128 ASCII	256 ASCII	256 ASCII
Symbol formation	7x9 in 10x10 cell	11x14 in 13x16 cell	11x14 in 13x16 cell	7x9 in 10x12 cell	5/8x10 in 6/10x10
Character phosphor	P31 green std.; amber opt.	P192 page white; green & amber opt.	P192 page white std green & amber opt.	P31 green std.; amber opt.	P31 green std.; amber opt.
Color capability	No	No	No	No	No
Graphics	DEC special graph	Std.	Std.	DEC special graph.	Std.
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	Std.	Std.	Std.	Std.
Scroll	Up/down std.	Up/down std.	Up/down	Up/down, smooth	Up/down, smooth
Paging	No	Opt.	Opt.	4 pages std.	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Std.	Both std.	Std.	Std.	Std.
Protected format	No	Std.	No	No	No
Partial screen transmit	No	Std.	Std.	Std.	Std.
Split screen/windows	No	Std.	Std.	No	No
Tabulation	Forward/backtab	Forward/backtab	Forward/back std	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.	Char./line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	256 ASCII	128 ASCII	128 ASCII	256 ASCII	256 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	15 std.	48 std.	45 std.	15/30 std.	15/30 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	Std.	Std.
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	No	Mouse	Mouse	—	—
TRANSMISSION PARAMETERS					
Mode	Full-duplex	Half/full-duplex	Half/full-duplex	Full-duplex	Full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII	ASCII	ASCII	ASCII	ASCII
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	75-19,200	110-38,400	110-38,400	110-38,400	50-19,200
Format	Character	Character	Character	Character/block	Character
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C	RS-422/423	RS-422/423	RS-232-C std.; 20mA and RS-422 opt.	RS-232-C std.; 20mA opt.
Integral modem	No	Opt.	Opt.	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	549	695	695	795	1,695
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	November 1986	11/86	11/86	November 1984	November 1984
Date of first production delivery	November 1986	12/86	12/86	April 1985	May 1985
Display units installed to date	—	—	—	—	—
Serviced by	Visual Technology	Visual Technology	Visual Technology	Visual Technology	Visual Technology
COMMENTS	DEC special graphics; 15 non-volatile function keys	70 Hz overscanned video; Tektronix 4010/4014 graphics std. w/resolution of 1056x400; flat profile CRT; calendar, alarm clock, and calculator accessories std.	70 Hz overscanned video; Tektronix 4010/4014 graphics std. w/resolution of 1056x400; flat profile CRT; calendar, alarm clock, and calculator accessories std.	DEC special graphics; five character sets	DEC special graphics; five character sets; Tektronix 4010/4014 and DEC ReGIS graphics emulation

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VENDOR AND MODEL	Visual 241	Visual 603	Visual 604	Volker-Craig VC4604 & VC4604/GX	Volker-Craig VC5000 & VC5000/GX
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	IBM 3101	No	No
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	DEC VT220/VT100/VT52; Tektronix	DEC VT220/VT100/VT52	Wyse 50+, ADDS VP, LSI ADM 31	Lear Siegler ADM 3A & VC4404	See comments
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,320, 3,828	1,920/3,168/6,600	1,920/3,168/2,000	1,920	2,000
Memory capacity, no. char./lines/pages	1 page	1 page	1 page	1,920 char.	8 pages
Screen arrangement, lines x char./line	29x80/132 plus status line	25x80/132, 50x132	25x80/132, 50x132	24x80	25x80
Screen area (diagonal), inches	14	14	14	12	12
Tilt/swivel screen	Std.	Std.	Std.	No	Std.
Total displayable symbols	256 ASCII	265 ASCII	128 ASCII, IBM PC	128 ASCII	512 ASCII
Symbol formation	5/8x10 in 6/10x10	11x14 in 16x13 cell	11x14 in 13x16 cell	7x9 dot matrix	7x9 in 9x10 cell
Character phosphor	Color (P21) RGB	P192 page white std; green and amber opt	P192 page white std green and amber opt	P31 green or amber	P31 green or amber
Color capability	Std. (4 from 64)	No	No	No	No
Graphics	Std.	Std.	Std.	Std. (VC4604/GX)	Std. (VC5000/GX)
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	No	Std.
Blink	Std.	Std.	Std.	No	Std.
Blank	Std.	Std.	Std.	No	Std.
Bold	Std.	Std.	Std.	Dim	Dim
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	Std.	Std.	No	No
Scroll	Up/down, smooth	Up/down std.	Up/down	Up std.	Up/down, smooth
Paging	No	Std.	Opt.	No	2 std.; 8 opt.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Std.	Both std.	Std.	Addressable only	Std.
Protected format	No	Std.	Std.	No	Std.
Partial screen transmit	Std.	Std.	Std.	No	Std.
Split screen/windows	No	Std.	Std.	No	Std.
Tabulation	Fwd./back std.	Forward/backtab	Forward/backtab	No	Std.
Character insert/delete	Std.	Std.	Std.	No	Std.
Line insert/delete	Std.	Std.	Std.	No	Std.
Erase	Char./line/screen std.	Char., line, and screen std.	Char., line, and screen	Line/screen std.	Line/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	256 ASCII	256 ASCII	128 ASCII, IBM PC	128 ASCII	512 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	15/30 std.	45 std.	45 std.	10 std.	16/32 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	Std.	No	No	Opt.	Opt.
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	—	Mouse	Mouse	—	—
TRANSMISSION PARAMETERS					
Mode	Full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII	ASCII	ASCII	ASCII	ASCII
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	50-19,200	110-38,400	110-38,400	50-19,200	50-19,200
Format	Character	Character	Chararacter	Character	Char./block
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C std.; 20mA opt.	RS-422/423	RS-422/423	RS-232-C std.; 20mA opt.	RS-232-C std.; 20mA opt.
Integral modem	No	Opt.	Opt.	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	2,195	695	745	495/945 (GX)	695/1,145 (GX)
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	November 1984	November 1986	11/86	May 1983	May 1983
Date of first production delivery	May 1985	December 1986	1/87	April 1984	February 1985
Display units installed to date	—	—	—	—	—
Serviced by	Visual Technology	Visual Technology	Visual Technology	Third party	Third party
COMMENTS	DEC special graphics; five character sets; Tektronix 4010/4014 and DEC ReGIS graphics emulation	70 Hz overscanned video; Tektronix 4010/4014 graphics std. w/resolution of 1056x400; flat profile CRT; calendar, alarm clock, and calculator accessories std.	70 Hz overscanned video;Tektronix 4010/4014 graphics std. w/resolution of 1056x400; flat profile CRT; IBM PC drawing graphics char. and keyboard scancodes; 25x80 pc screen format.	VC4604/GX features: Tektronix 4010 graphics format; 512x250 resolution; auto. scaling from 1024x780 resolution for Tektronix Plot 10 & Gino-F compatibility; National character sets	Emulates VC4604, VC4152, & VC414H, ADDS Viewpoint, DEC VT52, Esprit Systems Esprit, Hazeltine 1500, Lear Siegler ADM 3A/5 & ADM 11, TeleVideo 925 & 950; user-defined

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VENDOR AND MODEL	Volker-Craig VC5220	Wang 2110	Wang 4205	Wang 4210	Wang 4220
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	1	1	1	1
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	No
Teletype compatibility	Std.	No	No	No	No
Other compatibility	Digital VT220, VT100, VT131, VT52	ANSI X3.64	—	—	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920, 3,168	2,000	2,000	2,000	2,000
Memory capacity, no. char./lines/pages	1 page std.	—	—	—	—
Screen arrangement, lines x char./line	24x80/132	25x80	25x80	25x80	25x80
Screen area (diagonal), inches	14	12	12	12	12
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	256	256	256	256	256
Symbol formation	7x10 dot matrix	9x12 cell	8x10 dot matrix	8x10 dot matrix	8x10 dot matrix
Character phosphor	P31 green or amber	P31 green std.	P42 green std.	P42 green std.	P42 green std.
Color capability	No	No	No	No	No
Graphics	Business graphics	No	No	Std.	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	No	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	Std.	No	No	No	No
Scroll	Jump & smooth std.	Up/down std.	Up/down std.	Up/down std.	Up/down std.
Paging	1 std.	No	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	No	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	2 std.	No	No	No	No
Tabulation	Std.	Fwd./back std.	Fwd./back std.	Fwd./back std.	Fwd./back std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	Std.	Std.	Std.
Erase	Line/screen std.	Std.	Std.	Std.	Std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	128 ASCII	128 ASCII	128 ASCII	128 ASCII	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	15/30 std.	16 std.	16 std.	16 std.	16 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	30 cps-300 lpm
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	No	No	Std.	No
Other vendor-supplied devices	—	—	Monitor arm	Monitor arm	Monitor arm
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Full-duplex	Full-duplex	Full-duplex
Technique	Asynchronous	Asynchronous	Synchronous	Synchronous	Asynchronous
Communications protocol	ASCII	Wang private/ANSI	Wang private	Wang private	Wang private
Code	ASCII	WISCII/ASCII	WISCII	WISCII	WISCII
Speed, bits/second	75-19,200	Up to 19,200	4M	4M	Up to 9600
Format	Char./line/block	Character	Block	Block	Block
Multipoint operation	No	No	No	No	Std.
Terminal interface	RS-232-C	RS-232-C	Wang 928	Wang 928	RS-232-C
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	795	895	2,000	3,100	2,000
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	9	20	20	18
Annual prime-shift maintenance	—	108	240	240	216
Date of announcement	October 1985	April 1985	February 1983	August 1983	August 1983
Date of first production delivery	December 1985	June 1985	March 1984	August 1983	December 1983
Display units installed to date	—				
Serviced by	Honeywell, third party	Wang Laboratories	Wang Laboratories	Wang Laboratories	Wang Laboratories
COMMENTS					

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VENDOR AND MODEL	Wang 4230	Wang 4245	Westinghouse Canada IBM 3278	Westinghouse Canada UTS 20	Westinghouse Canada VIP 7814
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Both	Both	Both
Maximum displays/controller	1	1	31	31	31
Transportability	No	No	No	No	No
IBM compatibility	No	No	IBM 2176 SNA/SDLC	—	—
Teletype compatibility	No	No	NO	No	No
Other compatibility	—	—	Any W1683 emulation	Any W1683 emulation	Any W1683 emulation
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,000	2,000	2,000, 2,480 opt.	2,000, 2,480 opt.	2,000, 2,480 opt.
Memory capacity, no. char./lines/pages	—	—	512K, 1M opt.	512K, 1M opt..	512K, 1M opt.
Screen arrangement, lines x char./line	25x80	25x80	25x80, 31x80 opt.	25x80 , 31x80 opt.	25x80, 31x80 opt.
Screen area (diagonal), inches	12	12	14	14	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Both
Total displayable symbols	256	256	119 EBDCID	119 ASCII	119 ASCII
Symbol formation	8x10 dot matrix	8x10 dot matrix	7x8 dot matrix	7x8 dot matrix	7x8 dot matrix
Character phosphor	P42 green std.	Color	P31 green std., amber opt.	P31 green std. amber opt.	P31 green std. amber opt.
Color capability	No	8 colors std.	No	No	No
Graphics	No	Std.	No	No	Line graphics
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	No	No
Scroll	Up/down std.	Up/down std.	Up/down std.	Up/down std.	Up/down std.
Paging	No	No	No	4 std.	3 pages std.
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Std.	Both std.
Protected format	Std.	Std.	Std.	Std.	Std.
Partial screen transmit	Std.	Std.	Std.	Std.	Std.
Split screen/windows	No	No	6 opt.	6 opt.	6 std.
Tabulation	Fwd./back std.	Fwd./back std.	Std.	Std.	Std.
Character insert/delete	Std.	Std.	Std.	Std.	Std.
Line insert/delete	Std.	Std.	No	Std.	Std.
Erase	Std.	Std.	Char./field/screen std.	Char./line/screen std.	Char./field/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	128 ASCII	128 ASCII	119 EBCDIC	119 ASCII	119 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	16 std.	16 std.	24 std.	24 std.	24 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	—	—	—
Line printer, type, and speed	No	No	—	—	—
Composite video	No	No	—	—	—
Port for cust.-supplied devices	No	No	—	—	—
Other vendor-supplied devices	Monitor arm	Monitor arm	Light pen, magnetic card reader	Mag card reader	Mag card reader
TRANSMISSION PARAMETERS					
Mode	Full-duplex	Full-duplex	Half-duplex	—	—
Technique	Asynchronous	Synchronous	Synchronous	—	—
Communications protocol	Wang private	Wang private	BSC and/or SDLC	P1024C	VIP 7800
Code	WISCII	WISCII	EBCDIC	ASCII	ASCII
Speed, bits/second	4M	4M	110-19,200	110-9600	110-9600
Format	Block	Block	Block	Block	All std.
Multipoint operation	No	No	Std.	Std.	Std.
Terminal interface	Wang 928	Wang 928	RS-232-C std.	RS-232-C std.	RS-232-C std.
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	2,750	3,550-3,700	—	—	—
Controller, purchase	—	—	Integral controller	Integral controller	Integral controller
Monthly prime-shift maintenance	20	28	Contact vendor	Contact vendor	Contact vendor
Annual prime-shift maintenance	240	276 (first year)	Contact vendor	Contact vendor	Contact vendor
Date of announcement	November 1983	June 1984	—	—	—
Date of first production delivery	March 1984	June 1985	—	—	—
Display units installed to date	—	—	—	—	—
Serviced by	Wang Laboratories	Wang Laboratories	WCI, third party	WCI, third party	WCI, third party
COMMENTS			Multi-emulation capability support-ing concurrent oper-ation w/windowing, 2 RS-232-C ports std., 4 RS-232-C ports opt., con-figured to meet customers require-ments	Multi-emulation capability support-ing concurrent oper-ation w/windowing, 2 RS-232-C ports std., 4 RS-232-C ports opt., con-figured to meet customers require-ments	Multi-emulation capability support-ing concurrent oper-ation w/windowing' 2 RS-232-C ports std., 4 RS-232-C ports opt., con-figured to meet customers require-ments

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VENDOR AND MODEL	Westinghouse Canada IPARS	Westinghouse Canada Digital VT100/VT52	Westinghouse Canada Messaging Terminal	Wyse WY-30	Wyse WY-50
TERMINAL DESCRIPTION					
Standalone or cluster	Both	Bother	Both	Standalone	Standalone
Maximum displays/controller	31	31	28/3	—	—
Transportability	No	No	No	No	No
IBM compatibility	—	—	No	No	No
Teletype compatibility	No	No	Std.	Std.	Std.
Other compatibility	Any W1683 emulation	Any W1683 emulation	—	See comments	See comments
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,000, 2,480 opt.	2,000, 2,480 opt.	1,680	2,080	2,080, 3,432
Memory capacity, no. char./lines/pages	512K, 1M opt.	512K, 1M opt.	72K RAM/56K char.	1 page std.	1 page std.
Screen arrangement, lines x char./line	25x80, 31x80 opt.	25x80, 31x80 opt.	24x80	24x80 plus status & label lines	24x80/132 plus status/label lines
Screen area (diagonal), inches	14	14	12	14	14
Tilt/swivel screen	Std.	Std.	Tilt std.	Tilt std.	Std.
Total displayable symbols	119 EBCDIC	119 ASCII	96 ASCII	128 ASCII	128 ASCII
Symbol formation	7x8 dot matrix	7x8 dot matrix	5x7 dot matrix	7x11 in 10x12 cell	7x13 in 10x13 cell
Character phosphor	P31 green std. amber opt.	P31 green std. amber opt.	P31 green std.	P31 green	P31 green
Color capability	No	No	No	No	No
Graphics	No	No	No	Line drawing	Line drawing
Programmable field/char. highlighting via:					
Underline	Opt.	Std.	No	Std.	Std.
Blink	Opt.	Std.	No	Std.	Std.
Blank	Opt.	Std.	No	Std.	Std.
Bold	Opt.	Std.	No	Std.	Std.
Reverse	Opt.	Std.	No	Std.	Std.
Double size	No	No	No	Std.	No
Scroll	Up/down std.	Up/down std.	Up/down std.	Std.	Std.
Paging	2 pages std.	No	No	Std.	Std.
Selectable cursor blinking	Std.	Std.	No	Std.	Std.
Addressable/readable cursor	No	Std.	No	Both std.	Both std.
Protected format	No	No	No	Std.	Std.
Partial screen transmit	No	Std.	No	Std.	Std.
Split screen/windows	6 std.	6 std.	No	Std.	Std.
Tabulation	Opt.	Std.	Fwd/back std.	Std.	Std.
Character insert/delete	Std.	No	Std.	Std.	Std.
Line insert/delete	Std.	No	Std.	Std.	Std.
Erase	Char./screen std.	No	Character std.	Line/page/field std.	Line/page/field std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	119 EBCDIC	119 ASCII	96 ASCII	ASCII	ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	24 std.	24 std.	No	4/16 dedicated, 25 additional	16/32 dedicated
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	—	—	OKI 182/1200 baud	No	No
Line printer, type, and speed	—	—	—	No	No
Composite video	—	—	No	No	No
Port for cust.-supplied devices	—	—	No	Std.	Std.
Other vendor-supplied devices	Mag card reader	mag card reader	Hayes 1200 modem	—	—
TRANSMISSION PARAMETERS					
Mode	Full-duplex	Full-duplex	Half/full duplex	Half/full-duplex	Half/full-duplex
Technique	Synchronous	asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	P1024B	ASCII	83B3/X.28/Telenet	ASCII	ASCII
Code	PARS	ASCII	Bandot/ASCII	ASCII	ASCII
Speed, bits/second	110-9600	110-19,200	300/1200 baud	50-38,400	50-38,400
Format	Block	Character	Char./line/block	Char./block	Char./block
Multipoint operation	Std.	No	Std.	No	No
Terminal interface	RS-232-C	RS-232-C	RS-232-C/40 mA	RS-232-C	RS-232-C
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	—	—	—	399	599
Controller, purchase	Integral controller	Integral controller	—	—	—
Monthly prime-shift maintenance	Contact vendor	Contact vendor	—	—	—
Annual prime-shift maintenance	Contact vendor	Contact vendor	—	—	—
Date of announcement	—	—	—	August 1985	September 1983
Date of first production delivery	—	—	—	August 1985	November 1983
Display units installed to date	—	—	—	—	Over 500,000
Serviced by	WCI, third party	WCI, third party	WCI, third party	Wyse Technology, authorized dist.	Wyse Technology, authorized dist.
COMMENTS	Multi-emulation capability supporting concurrent operation w/windowing, 2 RS-232-C ports std., 4 RS-232-C ports opt., configured to customer requirements	Multi-emulation capability supporting concurrent operation w/windowing, 2 RS-232-C ports std.,4 RS-232-C ports opt., configured to meet customers requirements	All memory battery backed up, 16 message storage areas, 10 phrase storage areas, time of day clock displayed on every screen	Emulations include: Wyse WY-50, ADDS Viewpoint, Lear Siegler ADM 3A/5, ADM 31, TeleVideo 925; tilt/swivel or adjustable arm opt.	Emulations include: ADDS Viewpoint, Lear Siegler ADM 3A/5, ADM 31, TeleVideo 910, 920, 925, Hazeltine 1500

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VENDOR AND MODEL	Wyse WY-60	Wyse WY-75	Wyse WY-85	Wyse WY-350	Xpoint Remote 91
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	3101, 3161, PC	No	No	No	5291, 5251-11
Teletype compatibility	Std.	Std.	Std.	Std.	No
Other compatibility	See comments	DEC VT100, ANSI X3.64	DEC VT220/VT100, ANSI X3.64	See comments	—
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,080/3,432/3,520	2,080, 3,432	2,080, 3,432	2,080, 3,432	2,000
Memory capacity, no. char./lines/pages	Up to 7 pgs std.	1 page std.	1 page std.	1 page std.	
Screen arrangement, lines x char./line	26x80/132 & 44x80/132	24x80/132 plus status/label lines	24x80/132 plus status/label lines	24x80/132 plus status/label lines	25x80
Screen area (diagonal), inches	14 flat	14	14	15	—
Tilt/swivel screen	Std.	Std.	Std.	Std.	Tilt
Total displayable symbols	512	128 ASCII	256 ASCII	128 ASCII	—
Symbol formation	7x12 in 10x16 cell	7x13 in 10x13 cell	7x9 in 10x10 cell	7x13 in 10x13 cell	—
Character phosphor	Green, amber, paper white	P31 green	P31 green or amber	Color	—
Color capability	No	No	No	64 colors available	—
Graphics	Line drawing	Line drawing	Graphics soft. font	Line drawing	—
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	—
Blank	Std.	Std.	Std.	Std.	—
Bold	Std.	Std.	Std.	Std.	—
Reverse	Std.	Std.	Std.	Std.	—
Double size	Std.	No	Std.	Std.	—
Scroll	Std.	Std.	Std.	Std.	—
Paging	Up to 7 pgs std.	Std.	Std.	Std.	—
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	—
Protected format	Std.	Std.	Std.	Std.	—
Partial screen transmit	Std.	Std.	Std.	Std.	—
Split screen/windows	Std.	Std.	Std.	Std.	—
Tabulation	Std.	Std.	Std.	Std.	—
Character insert/delete	Std.	Std.	Std.	Std.	—
Line insert/delete	Std.	Std.	Std.	Std.	—
Erase	Std.	Char./line/page/ field std.	Char./line/page/ field std.	Line/page/field std.	—
KEYBOARD PARAMETERS					
Style	ASCII/ANSI/IBM 3161/IBM PC AT	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	128 ASCII	ASCII	ASCII	ASCII	96 EBCDIC
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	Std.	16/32 dedicated	20 dedicated	16/32 dedicated	8 Std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	—
Line printer, type, and speed	No	No	No	No	—
Composite video	No	No	No	No	—
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	—	—	—	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	—
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII/ANSI	ASCII/ANSI	ANSI	ASCII	Twinax
Code	ASCII	ASCII	ASCII	ASCII	EBCDIC
Speed, bits/second	50-38,400	50-38,400	50-38,400	50-38,400	19,200
Format	Char./line/block	Char./block	Char./block	Char./block	—
Multipoint operation	No	No	No	No	Addressable
Terminal interface	RS-232-C	RS-232-C	RS-232-C, RS-423, or 20mA	RS-232-C	RS-232-C
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	—
PRICING AND AVAILABILITY					
Display station, purchase	599	795	799	1,295	895
Controller, purchase	—	—	—	—	1,850
Monthly prime-shift maintenance	—	—	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	April 1986	February 1984	December 1984	December 1984	May 1986
Date of first production delivery	April 1986	February 1984	February 1985	February 1985	May 1986
Display units installed to date	—	—	—	—	250
Serviced by	Wyse Technology, authorized dist.	Wyse Technology, authorized dist.	Wyse Technology, authorized dist.	Wyse Technology, authorized dist.	Xpoint
COMMENTS	Compatible with: Wyse WY-30/50/70, ADDS VP A2/60, TVI 910/910+/912/920/ 925/950/955, Hazel-tine 1500, Data General Dasher 100/200 IBM 3101/3161/PC terminal, ANSI 3.64 DEC VT52/100		Emulations include: Wyse WY-50, ADDS Viewpoint, Lear Siegler ADM 3A/5, ADM 31, TeleVideo 910, 920, 925, Hazel-tine 1500		Remote 91 has a 5291-5251-11 key compatibile key-board; works with Xpoint controller or any other Twinax protocol converter

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VENDOR AND MODEL	Zenith Z-22	Zenith Z-29A	Zenith Z-49	Zentec ADM 3A	Zentec ADM 3E
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	No
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	LSI ADM 3A/5/11, TeleVideo 914	DEC VT100/VT52, LSI ADM 3A, Hazeltine	DEC VT100/VT52, Zenith Z-19, Z-29	ADM 3	ADM 3A/5, ADDS Viewpoint A2/3A+
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	2,000	2,000	1,920	1,920
Memory capacity, no. char./lines/pages	1 page	—	1 page	1 page	1 page
Screen arrangement, lines x char./line	24x80 plus status line	24x80 plus user line	25x80	24x80	24x80 plus status line
Screen area (diagonal), inches	12	14	14	12	14
Tilt/swivel screen	Std.	Std.	Std.	No	Std.
Total displayable symbols	128 ASCII	128 (91 ASCII + 33h)	128 ASCII	128 ASCII	128 ASCII
Symbol formation	5x9 dot matrix	5x7 dot matrix	10x12 dot matrix	5x7 dot matrix	7x9 dot matrix
Character phosphor	P31 green	Amber	P31 green or amber	P4 white or P31 green	P31 green or amber
Color capability	No	No	No	No	No
Graphics	Business graphics	Business graphics	Business graphics	Business graphics	Business graphics
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	Std.	Std.	Std.	No	No
Reverse	STd.	Std.	Std.	Std.	Std.
Double size	No	No	Std.	No	No
Scroll	Up std.	Std.	Up std., smth./jump	Std.	Std.
Paging	No	No	No	No	No
Selectable cursor blinking	Std.	Std.	Std.	No	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	Std.	Std.	No	No	No
Partial screen transmit	Std.	No	No	No	No
Split screen/windows	No	No	No	No	No
Tabulation	Fwd./back std.	Std.	Fwd./back std.	No	No
Character insert/delete	Std.	Std.	Std.	No	Std.
Line insert/delete	Std.	Std.	Std.	No	Std.
Erase	Char./line/screen std.	Std.	Char./line/screen std.	No	Line/page/screen std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Teletype	Typewriter
Character/code set	64 ASCII	ASCII	64 ASCII	128 ASCII	128 ASCII
Detachability	Std.	Std.	Std.	No	Std.
Program function keys	10 std.	9 std.	9 std.	No	8 std.
Numeric keypad	Std.	Std.	Std.	No	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	No	Std.	Std.	Opt.
Other vendor-supplied devices	—	—	—	—	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	ASCII	DC1-DC3	ASCII/ANSI	—	—
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	300-19,200	75-19,200	50-19,200	75-19,200	110-19,200
Format	Char./line/block	Char./block	Character	Character	Character
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C	RS-232-C	RS-232-C	RS-232-C; RS-422, 20 mA opt.	RS-232-C std.; 20 mA, RS-422 opt.
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	356	799	1,099	595	399
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	—	—	17	17
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	November 1984	January 1983	June 1984	May 1975	July 1985
Date of first production delivery	December 1984	—	August 1984	August 1975	July 1985
Display units installed to date	—	—	—	Over 240,000	—
Serviced by	Zenith	Zenith Data Systems	Zenith	Zentec	Zentec
COMMENTS	Auto logon permits programming of up to 10 different passwords or phone numbers		Emulates DEC VT52, VT100, & VT102, Zenith Z-19 & Z-29, ANSI X3.64	Formerly marketed by Lear Siegler	International character sets std.; unidirectional or bidirectional auxiliary port with independent transmission rate opt.; formerly marketed by Lear Siegler

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VENDOR AND MODEL	Zentec ADM 11	Zentec ADM 11plus	Zentec ADM 12plus	Zentec ADM 220	Zentec ADM 1000
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	No	No	No	No
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	See comments	See comments	See comments	DEC VT220/VT100/VT52, ANSI X3.64	See comments
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	1,920	1,920-3,168	1,920	1,920
Memory capacity, no. char./lines/pages	—	—	2 pages	1 page std.	1 page
Screen arrangement, lines x char./line	24x80 plus status line	24x80 plus status line	24x80/132 plus status line	24x80/132 plus status	24x80 plus status line
Screen area (diagonal), inches	12 std.; 14 opt.	12 std.; 14 opt.	12 std.; 14 opt.	12 or 14 std.	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	128 ASCII	128 ASCII	128 ASCII	94 ASCII	128 ASCII
Symbol formation	7x10 dot matrix	7x10 dot matrix	7x10 dot matrix	7x9 dot matrix	7x9 dot matrix
Character phosphor	P31 green; amber opt.	P31 green or amber	P31 green std.; amber opt.	P31 green or amber	P31 green std.; amber opt.
Color capability	No	No	No	No	No
Graphics	Business graphics	Business graphics	Business graphics	No	Business graphics
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	No	Std.
Bold	Reduced std.	No	Reduced std.	Std.	No
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	Std.	No
Scroll	Std.	Std.	Std.	Vertical/horizontal	Up std.
Paging	No	No	2 std.; 4 opt.	1 std.	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Both std.
Protected format	No	No	Std.	No	No
Partial screen transmit	No	No	Std.	No	No
Split screen/windows	No	No	Horizontal split	Std.	No
Tabulation	No	No	Std.	Fwd./back std.	No
Character insert/delete	No	Std.	Std.	Std.	Std.
Line insert/delete	No	Std.	Std.	Std.	Std.
Erase	Line/page/screen std.	Line/page/screen std.	Line/page/screen std.	Char./line/page/area std.	Char./line/page std.
KEYBOARD PARAMETERS					
Style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Character/code set	128 ASCII	128 ASCII	128 ASCII	ASCII	128 ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	8 std.	16 std.	32 std.	30 std.	8 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	—	—	—	—	No
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Full-duplex	Half/full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	—	—	—	ANSI X3.64	—
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	300-19,200	300-19,200	110-19,200	75-19,200	110-19,200
Format	Character	Character	Char./block	Character	Character
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C std., RS-422, 20 mA opt.	RS-232-C std.; 20 mA, RS-422 opt.	RS-232-C std.; 20 mA, RS-422 opt.	RS-232-C std.; 20 mA, RS-422 opt.	RS-232-C std.; 20 mA, RS-422 opt.
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	549	569	599	729	Contact vendor
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	17	17	17	17	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	May 1983	May 1985	December 1983	1984	—
Date of first production delivery	June 1983	June 1985	March 1984	1984	December 1986
Display units installed to date	—	—	—	—	—
Serviced by	Zentec	Zentec	Zentec	Zentec	Zentec
COMMENTS	Emulations include: LSI ADM 3A/5, ADDS Viewpoint & Regent 25, Hazeltine 1400, 1420, & 1500, DEC VT52; international character sets opt.; formerly marketed by Lear Siegler	Emulations include: LSI ADM 3A/5 & 11, ADDS Viewpoint & Regent 25, Hazeltine 1400, 1420, & 1500, DEC VT52; international character sets opt.; formerly marketed by Lear Siegler	Emulations include: LSI ADM 2, ADM 12, ADM 31, & ADM 32, TeleVideo 912, 920, 925, & 950; international character sets opt.; formerly marketed by Lear Siegler	International character sets std.; keyboard option—ADM 364; formerly marketed by Lear Siegler	Compatibility: LSI ADM 3A/3E/5, ADDS Viewpoint/A2/3A, Esprit 6110; formerly marketed by Lear Siegler

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VENDOR AND MODEL	Zentec ADM 1100	Zentec ADM 1178	Zentec ADM 1200	Zentec ADM 2000	Zentec WS-1000
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone	Standalone	Standalone	Standalone	Standalone
Maximum displays/controller	—	—	—	—	—
Transportability	No	No	No	No	No
IBM compatibility	No	3278	No	No	No
Teletype compatibility	Std.	Std.	Std.	Std.	Std.
Other compatibility	See comments	—	See comments	ANSI X3.64	DEC VT220
DISPLAY PARAMETERS					
Display capacity, no. of char.	1,920	1,920	1,920-3,168	1,920-3,168	2,000
Memory capacity, no. char./lines/pages	1 page	1 page	2 pages	2 pages	1 page
Screen arrangement, lines x char./line	24x80 plus status line	24x80 plus status line	24x80/132 plus status line	26x80/132 plus status line	25x80
Screen area (diagonal), inches	14	12 std.; 14 opt.	14	14	14
Tilt/swivel screen	Std.	Std.	Std.	Std.	Std.
Total displayable symbols	128 ASCII	128	128 ASCII	128 ASCII	128 ASCII
Symbol formation	7x10 dot matrix	7x10 dot matrix	7x10 dot matrix	7x12 dot matrix	—
Character phosphor	P31 green std.; amber opt.	P31 green std.; amber opt.	P31 green std.; amber opt.	P31 green std.; amber opt.	P134 amber std.; P4 wht., P31 grn. opt.
Color capability	No	No	No	No	No
Graphics	Business graphics	No	Business graphics	Business graphics	No
Programmable field/char. highlighting via:					
Underline	Std.	Std.	Std.	Std.	Std.
Blink	Std.	Std.	Std.	Std.	Std.
Blank	Std.	Std.	Std.	Std.	Std.
Bold	No	Std.	No	Std.	Std.
Reverse	Std.	Std.	Std.	Std.	Std.
Double size	No	No	No	Std.	No
Scroll	Up std.	Std.	Up std.	Up/down std.	No
Paging	No	No	2 std., 4 opt.	2 std., 4 opt.	No
Selectable cursor blinking	Std.	Std.	Std.	Std.	Std.
Addressable/readable cursor	Both std.	Both std.	Both std.	Both std.	Std.
Protected format	No	No	Std.	Std.	Std.
Partial screen transmit	No	No	Std.	Std.	Std.
Split screen/windows	No	No	Horizontal split	16 std.	Std.
Tabulation	No	No	Std.	Fwd./back std.	Fwd./back std.
Character insert/delete	No	Std.	Std.	Std.	Std.
Line insert/delete	No	Std.	Std.	Std.	Std.
Erase	Char./line/page std.	Line/page/screen std.	Char./line/page std.	Char./line/page std.	Std.
KEYBOARD PARAMETERS					
Style	Typewriter	IBM 3278-style	Typewriter	Typewriter	Typewriter
Character/code set	128 ASCII	ASCII	128 ASCII	128 ASCII	ASCII
Detachability	Std.	Std.	Std.	Std.	Std.
Program function keys	8 std.	24 std.	32 std.	32 std.	15 std.
Numeric keypad	Std.	Std.	Std.	Std.	Std.
ANCILLARY DEVICES					
Serial printer, type, and speed	No	No	No	No	No
Line printer, type, and speed	No	No	No	No	No
Composite video	No	No	No	No	No
Port for cust.-supplied devices	Std.	Std.	Std.	Std.	Std.
Other vendor-supplied devices	No	—	No	No	—
TRANSMISSION PARAMETERS					
Mode	Half/full-duplex	Half/full-duplex	Half/full-duplex	Half/full-duplex	Full-duplex
Technique	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Communications protocol	—	—	—	ANSI X3.64	ASCII
Code	ASCII	ASCII	ASCII	ASCII	ASCII
Speed, bits/second	100-19,200	300-19,200	110-19,200	50-38,400	75-19,200
Format	Character	Character	Character/block	Char./line/block	Character
Multipoint operation	No	No	No	No	No
Terminal interface	RS-232-C std.; 20 mA, RS-422 opt.	RS-232-C std.; 20 mA, RS-422 opt.	RS-232-C std.; 20 mA, RS-422 opt.	RS-232-C std.; 20 mA, RS-422 opt.	RS-232-C or RS-423
Integral modem	No	No	No	No	No
Integral acoustic coupler	No	No	No	No	No
PRICING AND AVAILABILITY					
Display station, purchase	Contact vendor	695	Contact vendor	Contact vendor	Contact vendor
Controller, purchase	—	—	—	—	—
Monthly prime-shift maintenance	—	17	—	—	—
Annual prime-shift maintenance	—	—	—	—	—
Date of announcement	—	December 1983	—	—	November 1984
Date of first production delivery	February 1987	March 1984	February 1987	February 1987	December 1984
Display units installed to date	—	—	—	—	—
Serviced by	Zentec	Zentec	Zentec	Zentec	—
COMMENTS	Compatibility: LSI ADM 3A/5, ADDS Viewpoint, Regent 25 Hazeltine 1400/1420, 1500, DEC VT52; formerly marketed by Lear Siegler	Emulates IBM 3278 Model 2 when used with protocol converter; formerly marketed by Lear Siegler	Compatibility: LSI ADM 2/12 plus/31/32, TeleVideo 912/920/925/950; formerly marketed by Lear Siegler	Formerly marketed by Lear Siegler	Expandable, with plug-in bus extender, to IBM PC & PC XT compatibility (separate workstation storage unit available); soft set-up

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VENDOR AND MODEL	Zilog VTZ 3/20				
TERMINAL DESCRIPTION					
Standalone or cluster	Standalone				
Maximum displays/controller	—				
Transportability	No				
IBM compatibility	No				
Teletype compatibility	No				
Other compatibility	DEC VT132				
DISPLAY PARAMETERS					
Display capacity, no. of char.	2,000, 3,300				
Memory capacity, no. char./lines/pages	4 pages				
Screen arrangement, lines x char./line	25x80/132				
Screen area (diagonal), inches	13				
Tilt/swivel screen	Tilt std.				
Total displayable symbols	128 w/line graphics				
Symbol formation	5x12 or 11x12 cell				
Character phosphor	P1 green or P134 amber				
Color capability	No				
Graphics	Std. (VT132)				
Programmable field/char. highlighting via:					
Underline	Std.				
Blink	Std.				
Blank	Std.				
Bold	Std.				
Reverse	Std.				
Double size	Std.				
Scroll	Std.				
Paging	4 std.				
Selectable cursor blinking	Std.				
Addressable/readable cursor	Std.				
Protected format	Std.				
Partial screen transmit	Std.				
Split screen/windows	No				
Tabulation	Fwd./back std.				
Character insert/delete	Std.				
Line insert/delete	Std.				
Erase	Std.				
KEYBOARD PARAMETERS					
Style	Typewriter				
Character/code set	64 ASCII				
Detachability	Std.				
Program function keys	16 std. (+ 16 shifted)				
Numeric keypad	Std.				
ANCILLARY DEVICES					
Serial printer, type, and speed	No				
Line printer, type, and speed	No				
Composite video	No				
Port for cust.-supplied devices	No				
Other vendor-supplied devices	—				
TRANSMISSION PARAMETERS					
Mode	Full-duplex				
Technique	Asynchronous				
Communications protocol	—				
Code	ASCII				
Speed, bits/second	Up to 19,200				
Format	Char./line/block				
Multipoint operation	No				
Terminal interface	RS-232-C				
Integral modem	No				
Integral acoustic coupler	No				
PRICING AND AVAILABILITY					
Display station, purchase	1,295				
Controller, purchase	—				
Monthly prime-shift maintenance	—				
Annual prime-shift maintenance	—				
Date of announcement	June 1984				
Date of first production delivery	June 1984				
Display units installed to date	—				
Serviced by	Zilog				
COMMENTS	80/132-column display; 25th line for status & static messages				