Video display terminal PC 1644



Display of up to 24 lines each of up to 80 characters

Internal memory to hold one screen of up to 24 lines with 80 characters maximum

5 by 7 dot matrix for character generation

64 Teletype compatible character set. Upper case characters displayed. (128 character set in transmission)

Teletype compatible keyboard

Extension interface to connect a V24 device

CCITT V24 (EIA RS232-C) or current loop interface

Application

The video display terminal PC 1644 is an ideal man machine interface in connections with a computer. It is a reliable, silent, easy to operate, unit offering a fast alternative to standard typewriter equipment.

The widely used interface standard CCITT V24 (EIA RS232-C) or current loop available in the terminal enables an easy connection to minicomputers and micro-computers.

Functional description

The PC 1644 has a display capacity of 80 character positions per line and 24 lines. Each character is composed using a 5 x 7 dot matrix. A video scanning technique is used to display information on the screen. The screen is a direct vision, bonded, etched, non-glare screen, which uses P4 (white) phosphor. These parameters result in excellent legibility. The keyboard arrangement is a standard lay-out also used for teletype writers.

The typed-in data always appears on the 24th bottom line of the screen. Depressing the line-feed button causes the total screen content to shift one line upwards, resulting in a free line at the bottom. Lines are shifted out at the top of the screen and are lost. The cursor position on the bottom line is visible with a flashing underline.

The PC 1644 displays 47 characters (capitals, numerics and control cha-

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racters). The non-visible characters complete this set to the normal 64 characters used for teletypewriters (ASR's etc.). Using the shift key however one can send up to 128 ASCII characters via the interface to, for example, a CPU (Central Processing Unit). The, up to, 128 ASCII characters include the small alphanumeric characters but these will not be visible on the screen. However, a special option can be provided to remedy this.
The PC 1644 can operate either in half-or full-duplex. The full-duplex capability permits the "echo-plex" technique in which the associated computer "echoes" each character back to the peripheral prior to display, thus enabling the operator to verify the data transmitted.
Transmission is performed in character mode (character-by-character, corresponding to each key depression).
The transmission interface conforms to CCITT V24/V28 (EIA RS232-C) or current loop (20 mA).
Eleven transmission rates are switch selectable as well as the number of bits in a character, the parity and the number of stop bits. When delivered, the terminal is set to 4800 bit/s. transmission rate, 7 bits per character, even parity and two stop bits. A convenient adjustment section is provided at the left-hand side of the keyboard under an easily removed cover. Here, one can easily change the transmission rates, bit configuration parity and number of stop bits.
The PC 1644 is equipped with an extension interface to connect another CCITT V24/EIA RS232-C device such as a printer, another display terminal, a floppy disc, a cassette drive etc.
The information exchange via the second interface is equal to the normal interface (they are connected in parallel) resulting in exactly the same data format as is visible on the screen. If, for example, a printer is connected, the typed-in information via the keyboard of the display as well as the output of a computer will appear on the printer as well as on the screen of the display. The information exchange from a computer when a printer is connected will naturally be slower due to the speed of the printer. No special precautions are necessary. However, the way to stop or start a connected printer in this configuration is to switch the printer off or on.

Options
- Upper and lower case characters visible on screen
- Numeric pad
- Composite video output

General specifications
Manufacturer: Lear Siegler (Teleprint)
Type: ADM 3 (VT 5700)
Style: table top
Physical characteristics:
Depth : 482.6 mm (19″)
Width : 393.7 mm (15.5″)
Height : 317.5 mm (12.5″)
Weight : 11.5 kg (25 lbs)
Cables: interface cable length 2.7 m ending in cannon male plug (V24) mains cable length 3 m
Power requirements:
Voltage: 110/220 V a.c. ± 10 %
(Standard delivered 220 V)
Frequency: 50/60 Hz ± 1 Hz (Standard delivered 50 Hz)
Power consumption: 80 W

Environmental conditions
Temperature operating: 10 - 50 °C
Relative humidity: 0 - 90 %

Display specifications
Characters per line: 80
Lines per display: 24
Character memory: 1920
Character repertoire: 64 ASCII
(128 ASCII sent)
Character generation: 5 x 7 dot matrix
Character size: 0.19″ height x 0.125″ width
Screen size: Diagonal 12″
Displayable screen area: 7.5″ high x 9.25″ width
Screen quality: Bonded, etched, non glare
Phosphor on screen: P4 (white)
Refresh rate: 50 per s. or 60 per s. (line frequency)
Cursor: Underline flashing

Keyboard
Number of keys: 53
Data keys : 47
Control keys : 6

Interface specifications
Interface standard: Serial CCITT V24/ EIA RS232-C or current loop (20 mA)
Transmit capability: Full or half duplex
Transmit rates: 75, 110, 150, 300, 600, 1200, 1800, 2400, 4800, 9600, 19.200 bits/s. switch selectable, when delivered set for 4800 bits/s.
Character structure: 7 or 8 bit; odd, even or no parity; one or two stop bits switch selectable. When delivered set to 7 bits, even parity and 2 stop bits
Extension interface: In parallel with normal interface
Interrupt modes: Break (key). Escape (key)

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