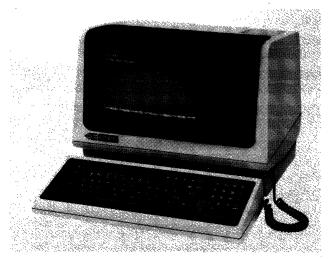# C. Itoh CIT Series Display Terminals

C. Itoh Electronics' CIT Series of display terminals provides DEC VT100 Series compatibility. The CIT-101, shown here, features a 12-inch display, 80/132-column capability, and a detachable keyboard. A full set of video attributes, split screen operation, and a tutorial set-up mode are also standard features of the CIT-101.

A family of DEC VT100-compatible video display terminals.

Family members include two monochrome models and a color unit. Features common to all three models include a 12-inch (diagonal) display screen, a detachable typewriter-style keyboard, character mode transmission, and a variety of visual attributes. An operator-selectable 80/132-column display is standard on the CIT-101 and CIT-161; the CIT-80 provides an 80-column display only.

Purchase prices for the CIT monochrome models are $1,195 for the CIT-80 and $1,695 for the CIT-101; the CIT-161 color display sells for $2,695. Quantity discounts are available.

MANAGEMENT SUMMARY

C. Itoh Electronics is the U.S. subsidiary of C. Itoh & Co., Ltd., the world's third largest international trading company. Formed in 1973, C. Itoh Electronics currently supplies a line of computer peripherals, including dot matrix and daisy wheel printers, floppy disk drives, and CRTs. The company's initial display terminal offering, the VIT-100, was introduced in 1980 at the NCC in Anaheim. Shortly thereafter, the terminal was enhanced and renamed the CIT-101. Since then, C. Itoh has expanded the CIT terminal line with the addition of new models, including the entry-level CIT-80, and the new color display, the CIT-161. The line also includes two graphics terminals, the CIT-414 and CIT-427, and a word processing terminal, the CIT-500, which are not covered in this report.

The CIT Series terminals are DEC VT100-compatible units. The CIT-101 provides emulation of the following DEC terminals: the VT52, VT100, VT101, and VT102. The CIT-101 features a 12-inch (diagonal) display; screen formats of 24 lines by 80 characters or 24 lines by 132 characters are operator-selectable. An 85-key detachable keyboard is also standard. Selectable video attributes include normal, reverse, blinking, underline, reverse half intensity, smooth or jump scrolling, and single or double height/width characters. Other features standard on the CIT-101 include: split screen operation with window erase; tutorial soft set-up mode; and transmission rates up to 19,200 bits per second.

The CIT-80 is the entry-level version of the CIT-101. The CIT-80 features DEC VT52/VT101-compatibility. While ▷

CHARACTERISTICS

VENDOR: C. Itoh Electronics, Inc., 5301 Beethoven Street, Los Angeles, CA 90066. Telephone (213) 306-6700. Exclusive representative: ACRO Corporation, 18003-L Sky Park South, Irvine, CA 92714. Telephone (714) 557-5118.

DATE OF ANNOUNCEMENT: CIT-101—June 1980; CIT-80—June 1981; CIT-161—June 1982.

DATE OF FIRST DELIVERY: CIT-101—December 1980; CIT-80—September 1981; CIT-161—3rd quarter 1982.

NUMBER DELIVERED TO DATE: Information not available.

SERVICED BY: Western Union.

MODELS

The CIT Series currently consists of three alphanumeric display terminal models:

CIT-80—a DEC VT52/VT101-compatible terminal. Features include 24-line by 80-character screen capacity, video attributes, and smooth scroll.

CIT-101—an enhanced version of the CIT-80, featuring compatibility with the DEC VT52, VT100, VT101, and VT102. Added features include 80/132-column display capability, split screen operation, and additional video attributes.

CIT-161—a color display terminal, with all the features of the CIT-101. Eight colors are standard, available in 64 programmable combinations.

TRANSMISSION SPECIFICATIONS

Transmission is asynchronous, in half- or full-duplex modes, at selectable speeds of 50, 75, 110, 134.5, 150, 200, 300, 600, ▶

C. Itoh CIT Series Display Terminals

▷ maintaining the same physical features as the CIT-101, the CIT-80 provides only the standard 24-line by 80-character format. Video attributes available on the CIT-80 include normal, reverse, blinking, underline, half intensity, and non-display. Smooth scrolling, tutorial soft set-up mode, English language diagnostics, and a line drawing graphics character set are also standard features.

The CIT-161 color display terminal was introduced at the 1982 NCC in Houston. The terminal contains all of the features of the CIT-101, including full DEC VT100 Series compatibility and 80/132-column display capability. The CIT-161 also features a total of eight displayable colors, available in 64 programmable combinations.

Maintenance service for the CIT Series display terminals is available through Western Union. C. Itoh's exclusive representative for the CIT terminals is ACRO Corporation, Irvine, California.□

▶ 1200, 1800, 2000, 2400, 3600, 4800, 7200, 9600, and 19,200 bps. An RS-232-C and 20mA current loop interface are standard. A character length of 7 bits is standard on the CIT-80, and a character length of 7 or 8 bits is standard on the CIT-101 and CIT-161, with 1 or 2 stop bits. Even, odd, or no parity is keyboard-selectable. ANSI-standard control sequences are provided. An independent auxiliary port is also standard.

DEVICE CONTROL

All models transmit data character-by-character as it is keyed. X/on-X/off protocol is utilized, with RTS-CTS handshake.

The cursor appears as a block or underline (operator-selectable) and can also be selected as blinking or non-blinking, and (on the CIT-101 and CIT-161) as visible or invisible. Character attributes available on the CIT-80 include: normal, reverse, blinking, underline, half-intensity, and non-display (security). Character attributes available on the CIT-101 and CIT-161 include: normal, reverse, blinking, underline, reverse half-intensity, and single or double height/width characters. Video attributes may be selected and used in any combination. Smooth scrolling is featured on the CIT-80; smooth or jump scrolling are selectable as video attributes on the CIT-101 and CIT-161.

Split screen operation is available on the CIT-101 and CIT-161. A window erase feature allows any portion of the display screen to be erased by providing the line and column coordinates of the upper left and lower right corners. Column tabs may be set and cleared, either by the operator or host computer, in any location or in every eighth position by using a control sequence.

A tutorial soft set-up mode is provided on all models for ease in setting display parameters. Monitor mode operation is also available on the CIT-101 and CIT-161. Other standard features on the two higher-end models include: English language diagnostics; hexadecimal keypad mode; and time-of-day clock.

The CIT Series features modular construction for ease of memory and logic card expansion.

COMPONENTS

CIT-80 and CIT-161 DISPLAY UNITS: A 12-inch (diagonally measured) display screen is standard. The CIT-80 features a 1920-character display capacity arranged in a screen format of 24 lines by 80 characters. The CIT-101 features display capacities of 1920 and 3168 characters, available in selectable screen formats of 24 lines by 80 characters and 24 lines of 132 characters. Characters are formed utilizing a 7-by-9 dot matrix in a 9-by-12 cell, and displayed in white (P4 phosphor) on a dark background. Green (P31 phosphor) characters are optional. A 96-character ASCII set is displayable, plus line drawing graphics.

CIT-161 DISPLAY UNIT: A 12-inch (diagonally measured) display screen is standard. The CIT-161 features display capacities of 1920 and 3168 characters, available in selectable screen formats of 24 lines by 80 characters and 24 lines by 132 characters. Characters are formed utilizing a 7-by-9 dot matrix in a 9-by-12 cell. Eight colors are displayable, in 64 programmable combinations. A 96-character ASCII set is displayable, plus line drawing graphics. A black matrix, high-density RGB color monitor is used.

KEYBOARD: An 85-key detachable keyboard, with a typewriter-style layout. The main key array consists of 67 keys; the 18-key numeric pad includes numerics and four general-purpose function keys. Seven LED visual indicators are included on the keyboard of the CIT-101 and CIT-161; three LEDs are dedicated to On-Line, Local, and KBD Locked, while four are user-programmable. The keyboard is connected to the display monitor via a six-foot coiled cord.

PRICING

The C. Itoh CIT Series display terminals are available for end-user purchase from the authorized distributor. Lease plans are also available. OEM/distributor discounts are available. Service is provided through Western Union.

	Purchase Price
CIT-80	$1,195
CIT-101	1,695
CIT-161	2,695 ∎