4014-1: Full ASCII character set
4015-1: APL compatible

Computer Display Terminal

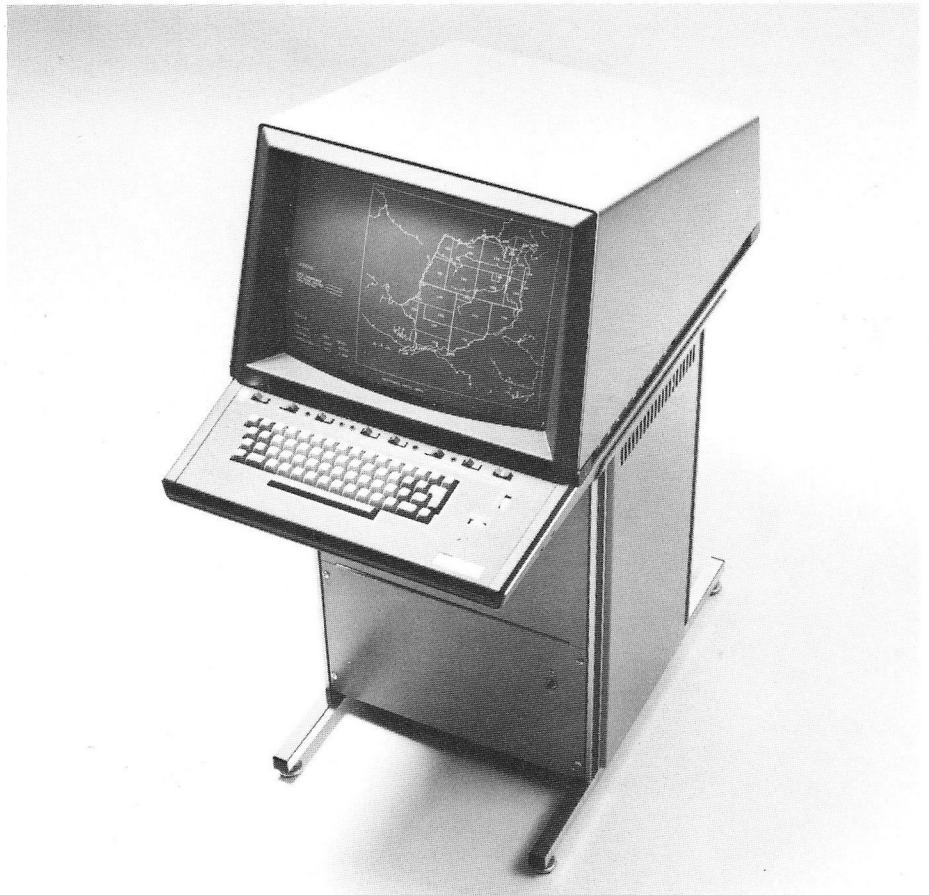**High-resolution, low-cost, APL option: our 48.26 cm (19″) Graphics terminal.** The most effective way to display a large data base is high-resolution big screen graphics. The 48.3 cm (19 inch) flicker-free 4014-1 and APL-language 4015-1 Computer Display Terminals give you capabilities for all kinds of applications—mapping, design, manufacturing, medicine, energy exploration and many more.

Big screen. Big features. The 4014-1 and 4015-1 offer 1024(x) by 780(y) displayable points standard, up to 4096(x) by 3120(y) displayable points optional, with the Enhanced Graphics Module. That's enough point capability to solve complex mapping and design tasks. Full 96-character ASCII keyboard with four program-selectable alphanumeric formats. Up to 8512 characters on display at once. Graphic crosshair cursor control, and hard copy compatability.

Of course, the 4014-1 and 4015-1 are immediately compatible with a full range of Tektronix peripherals, including the 4631 Hard Copy Unit, the 4923 Digital Cartridge Tape Drive, 4662 and 4663 Interactive Digital Plotter. And an option 5, peripheral control I/F, provides compatibility with the 4924 Digital Cartridge Tape and the 4907 File Manager Systems.

Plug-in intelligence options save time and transmission costs. Firmware options provide up to 26K of graphics memory for local symbols, stroke-drawn characters, overlays, or background graphics which can be redisplayed on command from the host or keyboard.

Reduce data transmission as you redraw portions of your graphics from local memory and generate circles and arcs by a single command. Add local scaling, rotation, and clipping of graphics. Buffered communications with the host and keyboard. Reduce CPU connect-time through local control of graphic tablets, plotters, and tape and disc storage. A variety of optional intelligence designed to help you keep up with new methods in mapping, process layout, financial graphing and many other applications.

Previews and overviews. Interactive previewing on the 4014-1 can lop considerable time off normal plotter

trial-and-error. As a cartographer's tool, the 4014-1 will draw precise maps of cities, states, and land formations, and isolate and enlarge those areas you choose.

The 4014-1 has become standard equipment for many phases of research, medicine, engineering, business, and energy-related fields. Chances are, its price makes it practical for your field as well. Contact your Tektronix Sales Engineer for full details.

Specifications:

Display medium:
Direct View Bi-Stable Storage CRT

Display area:
38.1 cm (15 inches) wide by 27.9 cm (11 inches) high

Alphanumeric mode:

Character set:
4014-1—Full ASCII character set (94 printing characters).
4015-1—Full ASCII and APL character sets (188 total printing characters).

Character format:
Four program-selectable formats:
1. 74 characters per line with 35 lines per display.
2. 81 characters per line with 38 lines per display.
3. 121 characters per line with 58 lines per display.
4. 133 characters per line with 64 lines per display.

Alphanumeric cursor:
7X9 dot pulsating cursor

Keyboard:
Typewriter paired upper and lower case with auto repeating keys. 4015-1 adds APL character set.

Graphics mode:

Drawing Time and Resolution:
Vector drawing time 127 meters per second (5000 inches). 1024(x) by 1024(y) addressable points (10 bits). 1024(x) by 780(y) viewable points.

Graphics Enhancements:

Option 34 enhanced graphics module:
High resolution 4096(x) by 4906(y) addressable points (12 bits). 4096(x) by 3120(y) viewable points.

Vector formats:
5 formats, including straight, dotted and dashed lines.

Point plotting modes:
Point Plot Mode
Special Point Plot Mode—absolutely addresses points with program control of plotted point size—0.25 to 1.27 cm (.010 to .050 inch) approximate point sizes. Incremental Plot Mode relative addressing 1 of 8 directions, one step at a time.

Option 40 Programmable Keyboard Capability
Save graphic displays, picture segments, symbols and alphanumerics in local memory (3K standard) for recall at the keyboard or under program control. Use nested programmable keys, local clipping, one line alphanumeric refreshed editing for data entry, and buffered communications.

*Option 41 Expanded Symbol and Character package. Add your own alternate stroke drawn character set, local rotation by 1° increments, local scaling of graphics upwards and downwards, local generation of circles and circular arcs, local design of your own symbols and character sets.

*Options 26 and 27. Provides 16K or 32K additional graphics memory for use with Option 40.

***Option 5 Peripheral Control Interface. Provides terminal control of the following peripherals: 4924 Digital Cartridge Tape, 4907 File Management System, 4662/4663 Interactive Digital Plotter, 4953/54 Graphic Tablet.

Interactive graphic mode:
Thumbwheel controlled crosshair cursor 3 thru 1024 addressable points horizontally. 0 thru 780 addressable points vertically.

Power source:
110/220 (Hi, Med, Low) VAC 48 to 440 Hz, 350 W.

Dimensions:
Height—110.48 cm (43½ inches)
Width—50.80 cm (20 inches)
Length—82.55 cm (32½ inches)

Weight:
68 kg (150 pounds)

Computer Interfaces:
Basic Data Communication Interface. EIA RS-232-C compatible. Full Duplex.
We also offer a range of optional interfacing designed for communications with most of the widely used mainframes and minicomputers.

Companion Products:
4631 Hard Copy Unit
4660 series of Interactive Digital Plotters
4923 Digital Cartridge Tape Recorder
4952 Joystick
4953/54 Graphic Tablet
**4924 Digital Cartridge Tape
**4907 File Management System

Software:

PLOT 10 Software packages designed to be used with the 4014-1 or 4015-1 Graphic Display Terminal, Terminal Control System, Advanced Graphing II, Preview Routines for CalComp Plotters, Minicomputer Software, Character Generation System, Interactive Graphing Package, Easy graphing, and the new Intelligent Graphics Enhancement Routines and Interactive Graphics Library.
Contact your Tektronix Sales Engineer for additional data.

   *Requires Option 40
  **Requires Options 5 and 40
***Requires Options 40, 41, and 26 or 27

Tektronix, Inc.
Information Display Division
P.O. Box 500
Beaverton, OR 97077
Telephone: (503) 682-3411
TWX: 910-467-8708
Cable: TEKTRONIX

Tektronix International, Inc.
European Marketing Centre
Postbox 827
1180 AV Amstelveen
The Netherlands
Telex: 18312

Sony/Tektronix Corporation
9-31 Kitashinagawa-5
Shinagawa-Ku
Tokyo 141 Japan
Telephone: 448-4611
  (Area 03/Tokyo)
Telex: 02422850
Cable: SONYTEK Tokyo

Tektronix Australia Pty. Limited
Sydney
80 Waterloo Road
North Ryde, N.S.W. 2113
Telephone: 888-7066
Telex: AA 24269
Cable: TEKTRONIX Australia

Tektronix Canada Ltd.
P.O. Box 6500
Barrie, Ontario, Canada L4M 4V3
Telephone: (705) 737-2700
Telex: 06-875672
Cable: TEKANADA

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