The Ramtek 6200A is a sophisticated, interactive computer terminal which provides the user with high resolution, raster scan Colorographics. The Ramtek 6000 Series provides the user with a highly-modular and flexible graphic terminal which gives you full color output from your computer. Ramtek gives you high resolution, cost-effective Colorographics today.

The 6200A Colorgraphic Computer Terminal integrates the latest in raster scan graphics and microprocessor technology with an interpretive graphics programming language to provide a comprehensive Colorographics terminal. The Colorographic Programming Language is a powerful tool for user-oriented commands that are easy to learn and easy to use. This offers graphics users an efficient way to add color to their existing graphics applications. It allows non-graphics users an effective way to move immediately to Colorographics.

The 6200A has full color graphic and alphanumeric capabilities. The independent graphic and alphanumeric random access memories (RAM) may be viewed either together or separately. This provides maximum flexibility to the user.

The bright, flicker-free color display may be easily viewed in typical ambient light conditions. And, in addition, Colorraphics maximizes the utility of the information displayed.

Teletype compatibility allows the user immediate access to his computer system. The 6200A has several options available to increase the graphics utility of the terminal in the computer graphics movement.

**DISPLAY**

- **Type:** High Resolution RGB Monitor, P22 Phosphor
- **Size:** CRT 330mm (13") Diagonal
  - Visible Raster—255mm (10") x 191mm (7.5") Y
  - 51 Pixels/in. x 34 Pixels/in. Y
  - 4:3 Aspect Ratio

**GRAPHICS**

- **Origin:** 0.0 Lower Left Corner
- **Displayable Pixels:** 512 (X) by 256 (Y), 1.5:1 Rectilinear
- **Vector Speed (max):**
  - HORIZ: 20 μs/Pixel
  - VERT: 66 μs/Pixel
  - ANGLE: 112 μs/Pixel
- **Text Characters:** 128 Displayable ASCII Characters
  - 7 x 10 Character Cell
  - 5 x 7 Character Matrix
- **Vector Type:** Solid (Patterned Vectors / Fill Optional)
- **Cursor:** Blinks — Crosshair
- **Blink Mode:** Defined Graphic Entity Hardware (Optional)
- **Color PROM:**
  - Primary Color Table—8 Colors
    - White, Red, Green, Blue, Magenta, Cyan, Yellow, Black
  - Alternate Color Table
    - One Black and Seven White

**ALPHANUMERICs**

- **Origin (Home):** Upper Left Corner
- **Format:** 72 Columns by 25 lines, 1800 Total Characters
- **Font:** 96 Displayable ASCII Characters
  - 7 x 10 Character Cell
  - 5 x 7 Character Matrix
  - On-The-Fly Character Generation
- **Cursor:** Underline with Selectable Blink
- **Color PROM:**
  - Green (Default)
  - Primary Color Table—8 Colors
    - White, Red, Green, Blue, Magenta, Cyan, Yellow, Black
  - Alternate Color Table
    - One Black and Seven White
- **Display Modes:** Reverse Background, Blink, and Underline
- **Edit Mode:** Overstrike Replaces With Last Character and Color

**KEYBOARD**

- **Detachable:** 51cm (2 ft.) Cable Standard
- **Alphanumeric Group—61 Keys**
- **User Function Group—12 Keys**
- **Terminal Control Group—16 Keys**
- **Cursor Control Group—12 Keys**
- **Data Communication Control Group—5 Switches**
- **Parity Switch:** Odd, Even, or No Parity
- **Communication Mode Switch:** Full Duplex and Local Echo
- **TTY Mode Switch:** On—64 Character ASCII or Off—Full ASCII
- **Local/Remote Switch**
- **Speed Switch:** 110, 300 or Selectable (1200 Baud Default)
- **Auto Repeat:** N-Key Rollover

**TERMINAL INPUT/OUTPUT**

- **Data Communications:**
  - Serial Asynchronous—EIA Standard RS 232C and CCITT/V24
  - External Switch Selectable:
    - 110, 300 and Selectable (1200 Baud Default)
  - Internal DIP Switch Selectable:
    - 50, 110, 134.5, 150, 300, 600, 1200, 1800, 2400, 4800 or 9600 Baud
  - Operation above 1200 baud may require nulls or handshake protocol to insure proper terminal operation.
- **Peripheral Port 1 (PER 1):** DCE, RS 232C, Bit Serial Differential
- **Peripheral Port 2 (PER 2):** DCE, RS 232C, Bit Serial TTL
- **Video Outputs (BNC):**
  - R, G, B — Graphical and/or Alphanumeric, RS 170 Compatible
  - B/W — Alphanumeric Only
- **Hardcopy:** A/N and/or Graphic
TERMINAL CONTROL SOFTWARE (TCS)  TCS Release 2.0 firmware is included.

COLOROGRAPHIC COMMAND SUMMARY

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PHYSICAL SPECIFICATIONS

Table-Top Configuration

Weight: Terminal 60.0 kg (130 lbs.)
Keyboard 3.2 kg (7 lbs.)
Total Shpg. 80.0 kg (175 lbs.)

Dimensions:
Terminal—483mm H (19") x 533mm W (21") x 838mm (33")
Keyboard—319mm H (12.5") x 533mm (21") x 319mm D (12.5")

Power Requirements:
Input Voltage—108-130 VAC at 47 to 66 Hz
Power Consumption—550W (max)
Fusing—15 Amps (fast blow)

ENVIRONMENTAL SPECIFICATIONS

Temperature, Free Space Ambient
Non-Operating—20° to 65°C (4° to 149°F)
Operating—5° to 40°C (41° to 104°F)
Relative Humidity: 20-80% (non-condensing)

PRODUCT SUPPORT

Warranty: 90 days parts and labor
Installation: Terminal installation can be performed by the owner/user.
Refer to reference manual supplied with unit for detailed instructions. Installation can be provided upon request and at the prevailing rates by Ramtek.

Documentation Supplied:
6000 Series Installation & Adjustment Procedure
6000 Series Programming Manual

OPTIONS

6002 SELECT Baud Rate
SELECT baud rate position may factory pre-set to baud rate
other than standard 1200 baud (default) position.

6003 Host Interface Option
Current Loop or Differential operation may be selected instead
of standard TTL.

6801 Scratchpad Memory Extension
12K bytes of RAM may be added to existing 4K bytes of RAM for
a total of 16K bytes of Scratchpad RAM space.

6804 Interactive Joystick
Includes 4' cable

6805 Special Graphics Color PROM
A custom PROM may be ordered which will have colors selected
from the 6000 Series Color Chart. Specify special colors on
Selection Chart and include with order.

6811 Graphic Blink Overlay
An overlay which allows the user to "blink" graphic entities on
the display. This option does preclude the normal use of the
alternate color PROM.

6901 Subroutines Firmware
CALL Invoke A Subroutine
DEL Delete Subroutines Line Numbers
FKKEY Assign A Function Key To A Subroutine
GOTO Transfer Control Within Subroutine
RET Return From A Subroutine
SEND Formatted Output From Terminal

6902 Patterned Vectors/Fill Firmware
LPL Load Patterned Line
PLINE Patterned Line
PFILL Patterned Fill

ramtek
Our Experience Shows
585 North Mary Avenue
Sunnyvale, California 94086
(408) 735-8400
No one can let you plug in to Colorgraphics as easy as...

Ramtek.

Color adds information and clarity to any display. Color increases operator efficiency. In every application, color works harder.

Now, Colorgraphics from Ramtek makes it easy for you to upgrade your terminals.

Easy, because conversion is as simple as unplugging the old and plugging in the new.

Easy, because writing programs is so uncomplicated you can be displaying your first colorgraphics in half-an-hour.

Easy, because Colorgraphics is the only complete family of raster scan colorraphics terminals.

Easy, too, because stand-alone colorographics terminals let you develop your color software without costly CPU overhead.

Finding out more is just as easy. Call your nearest Ramtek Office. Or, write: Ramtek, 585 N. Mary Ave., Sunnyvale, CA 94086.

The complete terminal family is ready to plug in.
A. The 6110, our lowest-priced true colorographics terminal. B. The 6200A, more capabilities per dollar than any comparable terminal. C. The 6310, the highest resolution raster scan color terminal made.
The Colorgraphics computer terminal family is the beginning of a new era in computer graphics.

"If you are looking for true color graphics, there is no lower priced way to make the switch from monochrome or black-and-white than the new 6110 Colorgraphics."

"The user who is looking for a versatile, general-purpose graphics terminal will soon discover that the 6200A Colorgraphics offers more features for the money than anything else around."

"The critical fact about the Colorgraphics 6310 is performance. With an 800 x 600 displayable matrix it is simply the highest resolution raster scan color terminal on the market today."

The 6110 Colorgraphics
- 320 x 240 x 3 graphics matrix.
- Medium resolution 13" color monitor.
- 72 x 25 alphanumerics format.
- TV compatible format.
- Eight graphics colors.
- Pedestal configuration.
- Ideal for educational, business and process control applications.

The 6200A Colorgraphics
- 512 x 256 x 3 graphics matrix.
- High resolution 13" color monitor.
- 72 x 25 alphanumerics format.
- Eight selectable colors.
- Desktop or rack mount configuration.
- Ideal for general computer graphics applications.

The 6310 Colorgraphics
- 800 x 600 x 3 graphics matrix.
- Ultra-high resolution 19" color monitor.
- 72 x 24 alphanumerics format.
- User programmable colors.
- Color zoom/pan over the full 1024 x 1024 memory.
- Pedestal configuration.
- Ideal for high resolution computer graphics applications such as scientific research and computer aided design.

Color does more for you
1. You can display more information on the screen at one time.
2. You get another dimension for data display.
3. You react faster to changes in data.
4. You have many more choices when coding graphics and alphanumerics.
5. It's less boring for the user; efficiency increases.

Two terminals in one
Dual architecture gives you separate memories for graphics and alphanumerics. Each terminal can function as either a teletype or a graphics terminal or both simultaneously. Increases your flexibility in how you can assign work stations and the kinds of tasks that can be performed at each.

TTY compatible
The family is RS 232 and CCITT (V 24) compatible. A serial asynchronous communications interface minimizes host interface problems.

Total compatibility
The Colorgraphics family is upward and downward compatible in software, options and peripherals. There is no wasted effort, wasted money or retraining required to shift from one model to the next.

They stand alone
Powerful terminal-resident firmware provides an easy-to-use interpreter. You can develop your Colorgraphics software off-line, without costly host computer overhead.

From Ramtek, Who Else?
Ramtek has been the innovator in raster scan color imaging and graphics technology from the first. Nobody knows more about it. Nobody gives you more ways to take advantage of its potential—at an affordable price.

You get true Raster Scan Colorgraphics
Every plot point is addressable. In a character graphic system the entire character cell must be one color. With raster scan, each pixel (picture element) can be a different color. It adds versatility and effectively increases color resolution.

Easy to program
Ramtek's Colorgraphics programming language is an extremely high-order language. Commands are brief and intuitive. Complex graphics operations, such as drawing a circle require only a single command. Operator training time is reduced to a minimum.

Easy on the user
60Hz, non-interlaced repeat field operation makes the display flicker-free. Operators can look at the display for longer periods without fatigue. The bright, easy-to-read display permits use in a wide range of lighting conditions.

Ramtek
Our Experience Shows
585 N. Mary Ave., Sunnyvale, CA 94086
(408) 735-8400