



Features

- TMS34010 Graphics Processor
- 16 or 256 Colors
- Up to 1024 x 768 Screen Resolution
- Interlaced and Non-Interlaced Operation
- 16-Color Overlay Plane
- 256-Color Underlay Plane
- Hardware pan and zoom

The RG-751

The TMS34010-based RG-751 is a full function graphics board for use with VGA and SVGA color video monitors, complete with keyboard and mouse interfaces, programmable resolution, and on-board firmware. It supports flicker-free non-interlaced screen resolutions from 640 x 480 to 1024 x 768 @ 60Hz.

The RG-751 includes overlay and underlay planes with hardware pan and zoom. The overlay plane provides 16 colors for text and graphics. The underlay plane offers 256 colors with independent update, hardware scroll, pan and zoom. The RG-751 is ideal for medical or

industrial applications that require static text or graphics information superimposed on rapidly changing underlay data, such as strip charts or gauges.

Software support includes the Standard Drawing Library (SDL) firmware and drivers for VxWorks based systems. VMEbus board address is selectable with factory-installed. Please see ordering information for details. Custom addressing is also available for a nominal fee.

Hardware Features

- TMS34010 Graphics Processor
- 16/256 colors
- Standard Drawing Library (SDL) Firmware
- Up to 4 MB DRAM (1 MB standard)
- 1 MB display VRAM
- 1 MB underlay VRAM and 512 KB overlay VRAM
- Video DAC with 256x24 color lookup table
- DB15 VGA Interface

- Sync-On-Green
- BNC Video Interface (Option)
- Planar EL Flat panel Interface (Option)
- RS-232 interface for Mouse or Serial Port
- AT keyboard interface
- Supports interlaced and non-interlaced video
- VMEbus addressing PAL sets: -PS25, -PS26, -PS27, -PS28

Standard Drawing Library (SDL)

SDL, is a scaleable C graphics library. It is small, compact, ROMable, and offers device independent graphics functions for board level and embedded systems applications. Limiting the number of functions used in a given application can control its target code size. SDL is written in ANSI C and is supplied in library format. This simple to use library

provides a complete set of graphics primitives that can be extended by adding utility functions for specialized graphics tasks. Included is a generic graphics driver module that provides the hardware specific routines needed to interface to the graphics hardware in a user's system.

SDL Software Features

- Solid (thin and wide) and Dashed Lines and Rectangles
- Circles, Ellipses, and Arcs
- Filled Circles, Chords, Sectors, and Polygons
- Solid and Pattern Fills - Pixel Processing

- Proportional and Fixed Width Fonts
- Clipping Rectangle and Logical Origin
- Screen to Screen and Host to Screen Image Copy
- Mouse and Keyboard Support

Product Specifications

Graphics Controller	TMS34010
Memory Configuration	1MB or 4MB DRAM 1MB display VRAM 1MB underlay VRAM 512KB overlay VRAM
Display Colors	16 or 256 color
Overlay/Underlay Colors	16 colors overlay 256 color underlay
Programmable Resolutions	640h x 480v x 4 or 8-bits 800h x 600v x 4 or 8-bits 1024h x 768v x 4 or 8-bits
Dimensions	6U VME
Video Connector	DB15-HD VESA (VGA) BNC (option)
Monitor Support	Analog: standard and multi-frequency monitors, including Sync-On-Green (SOG)
Flat Panel Support	Planar EL interface (option)
Software Support	Standard Drawing Library (SDL)
Power Requirements	+5V @ 3.0 A (Max.) ±12V @ 0.2 A (Max.) EL Option (added to the above) +5V @ 0.2 A (Max.) +12V @ 2.0 A (Max.)
Environment	
Operating temperature	0°C to +55°C
Storage temperature	-40°C to +65°C
Humidity	0% - 95% non-condensing
Altitude	7,500 feet

Ordering Information

Standard Configurations:

RG-751 - 6U VME board, 1 MB DRAM, underlay/overlay planes, pan and zoom

Option	Description	A24 Address	A32 Address
-PS25	Interface PAL Set	E00000h	E000 0000h
-PS26	Interface PAL Set	D00000h	D000 0000h
-PS27	Interface PAL Set	800000h	8000 0000h
-PS28	Interface PAL Set	A00000h	A000 0000h
-CP	Custom Interface PAL Set	xxxxxxh	xxxx xxxhh
-50Hz	Specifies 50 Hz video timing		
-M4	Specifies 4MB of DRAM		
-EL1	Interface and Firmware for EL7768MS		
-BNC	Optional RGB BNC video connectors		

www.rastergraf.com

Rastergraf, Inc.
1804-P SE First Street
Redmond, Oregon 97756
tel: +1 (541) 923-5530
fax: +1 (541) 923-6475
email:sales@rastergraf.com

Rastergraf