



Features

- TMS34010 Graphics Processor
- 16 Colors
- 640 x 480 Screen Resolution
- Interlaced and Non-Interlaced Operation
- VGA or flat panel output
- 3U (shown above) or 6U face plate

The RG-740

The TMS34010-based RG-740 is a basic graphics board for use with VGA color video monitors, complete with programmable display parameters, and on-board firmware. It supports flicker-free non-interlaced screen resolution of 640 x 480 @ 60Hz.

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 colors
- Standard Drawing Library (SDL) Firmware
- 256 KB DRAM (34010 program memory)
- 256 KB display VRAM
- Video DAC with 256x24 color lookup table
- DB15 VGA Interface
- Sync-On-Green
- Supports interlaced and non-interlaced video
- VMEbus addressing PAL sets: : -PS0, -PS1 and -PS2
- 6U Front Panel Option

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

Product Specifications

Graphics Controller	TMS34010
Memory Configuration	256 KB DRAM 256 KB VRAM
Display Colors	16 color
Programmable Resolutions	640h x 480v x 4 bits
VMEbus interface	A16, D16; A24, D16
Dimensions	3U VME
Video Connector	DB15-HD VESA (VGA)
Analog Monitor Support	Standard and multifrequency monitors, including Sync-On-Green
Flat Panel Support	Planar EL interface (option)
Software Support	Standard Drawing Library (SDL)
Power Requirements	+5V @ 2.0 A (Max.) ±12V @ 0.2 A (Max.)
EL Option (added to the above 5V)	+5V @ 0.2A +12V @ 2.0A
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 Configuration:

RG-740 3U VME board, 256 KB DRAM, 3U Face Plate

Option	Description	A24 Address
-PS0	Interface PAL Set	E00000h or D00000h
-PS1	Interface PAL Set	C00000h or B00000h
-PS2	Interface PAL Set	A00000h or 900000h
-CP	Custom Interface PAL Set	xxxxxxh or xxxxxxh
-6U	Specifies 6U front panel	
-50Hz	Specifies 50 Hz video timing	
-EL1	Interface & Firmware for EL7768MS	

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