

Digital Video Card

VTG-3112

PCI Interface

Video Card for Digital Displays

The VTG-3112 PCI board is a digital video card designed for testing, evaluating and servicing different types of Flat Panel Displays in manufacturing, research & development. It can supply the necessary signals for displaying test pictures on LCD, EL and Plasma Displays or other equipment using digital video inputs, colour or monochrome.

Excellent tools for testing

VTG software comes with a set of commonly-used timings and test patterns. For user's special needs it is simple to edit and modify them and save for further use. It offers complete single pixel control in any timing and pattern including text with bitmap and vector fonts. It is easy to build test sequences for manufacturing, burn-in, quality control and service routines. Also multiple generators can be controlled in one PC.

Unigraf VTG Software and Hardware offer quick, easy and powerful tools designed precisely for various types of video testing applications of today and tomorrow.

Easy & Efficient Interfacing Control

The large variation in the interface signaling required by different types of displays is solved by versatile VTG Interface Adapter bus. Different VIA- adapters, supporting various display interfaces, can be connected to VTG-3112. New VIA-adapters can be developed as the interfaces and standards improve and change.

Powerful programmability and software support

- Max 130 MHz double pixel clock enabling 260 MHz pixel frequency
- WinVTG.exe User Interface for Windows™ (95, 98, NT, 2000,XP)
- DLL for application programming
- Bitmap support for multiple file formats: .BMP .GIF .JPEG .PCD .PCX .PNG .TIF
- ATE support, VESA DPMS and DDC
- Unlimited number of permanent programmable patterns, timings, colors, palettes, signal formats and sequences

UNIGRAF

Video Card VTG-3112

BASIC SPECIFICATIONS

(Some features can be extended with the use of a suitable Interface Adapters)

Pixel Clock	From 1 MHz to 130 MHz Double Pixel Clock for 260 MHz Max Pixel Frequency Step: 0,01 MHz Accuracy ± 50 ppm
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Graphics Display Memory Size

■ Resolutions	2048 x 2048 x 8 bit colors out of 16.7 million true color
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Horizontal Timing

■ Scan Range	1 - 1000 kHz
■ Period	256 - 4096 pixels
■ Sync Pulse	2 - 2048 pixels
■ Back Porch	0 - 2048 pixels
■ Display Resolution	16 - 4080 pixels, active
■ Adjust Step	1 pixel for all dot clocks

Vertical Timing

■ Scan Range	10 - 200 Hz
■ Period	4 - 4500 lines
■ Sync Pulse	1 - 4095 lines
■ Back Porch	0 - 4095 lines
■ Display Resolution	1 - 4200 lines, active
■ Adjust Step	1 line for all parameters

Outputs

■ Digital Video	2 pixels x 24 bit (3 x 8 bit, RGB) TTL-level, 50 W termination
■ Colors	256 simultaneous colors out of 16.7 million 24 bit palette
■ Hsync	TTL-level, 50 W termination
■ Vsync	TTL-level, 50 W termination
■ Blank	Composite blanking signal, TTL-level, 50 W termination
■ Pixel Clock	TTL-level, 50 W termination
■ Connector	DHP-100 Dsub Half Pitch

Display Data Format

■ Scan Modes	Single- or dual-scan
■ Pixel Clocking	Data on rising edge, on falling edge or on both edges (DDR) 1, 2 or 4 pixels per clock
	Clock
	Blank
	Hsync
	Vsync
	} Polarity and Phase delay adjustment

Custom Pattern Programming

The Unigraf VTG Series allows you to create your own patterns with a few simple lines of code. For example:

```
COLOR 15 ; Sets the color of the pattern
REPEAT A 0 10000 500 ; Sets up a loop to be repeated 20 times
LINE A 0A 10000 ; Draws 20 lines from top to bottom of display - left(0) to right (10000)
END
```

You can program patterns in SCALED mode with 10000 x 10000 virtual resolution. The ABSOLUTE mode programming uses actual pixel values from horizontal 0-MaxX and vertical 0-MaxY, respectively. Both pattern types can be used with different timings.

Data Communication

- DDC2B capable DDC interface with write function

Data Storage

- Number of Files only restricted by usable disk capacity
- Timing Files unlimited
- Test Patterns unlimited
- Color Set Files unlimited
- Test Sequences unlimited
- Instruction Files unlimited

Data File Management

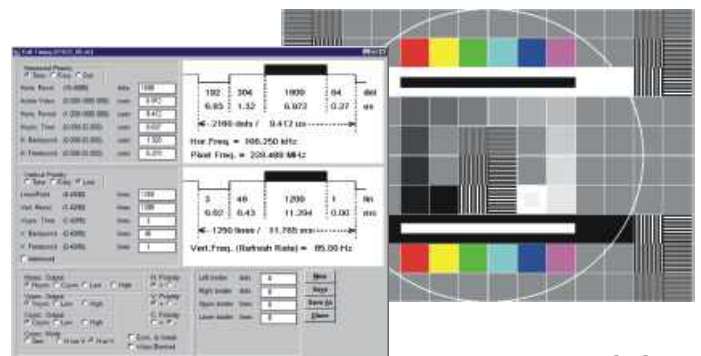
- Default Settings Programmable timing, pattern, color and sequence files at start
Selection of normal or auto sequence
- File Path Setting Separately programmable for all file types
- LAN Control Possible with standard LAN-software

System Requirements and Software

- Windows™ operating system (95, 98, NT, 2000)
- WinVTG .exe User Interface
- Windows DLL software library
- Visual Basic and C++ sample programs
- PCI-bus
- Power: +5V/3A max, +12V/10mA
(+ output connector supply for +5V max1A and +12V max2A)
- EMI: meets EN 55011, Class B
- Dimensions: 272 mm x 107 mm

VTG Interface Adapters and Display Interfacing

- VIA-TMDS, serial differential adapter
- VIA-LVDS, serial differential adapter
- VIA-RGB, analog differential adapter
- VIA-TTL, parallel adapter
- DHP-100, parallel 100pin cable with optional PCB-connector
- Special 3+8bit control bus for customized interface adapters



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ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

