

**Powerful Engineering
for
Digital Display**

Video Test Generator

VTG-1108



Test Signal Generator for Flat Panel Displays

The VTG-1108 ISA board is a digital video signal generator 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 patterns on LCD, EL or Plasma Displays or other equipment using digital video inputs, colour or monochrome.

Excellent tools for testing

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 signalling required by the different types of display panels has been taken into account in the design of the VTG-1108 by making the board very flexible and versatile. Moreover, provisions have been made for extending performance even further with a choice of Personality Modules, adapters that can be connected with the output of the VTG-1108 for matching the output with the connector pinout and signalling of the display panel.

Powerful programmability and software support

- 82 MHz double pixel clock for 164 MHz pixel frequency
- Resolution up to 1920 x 1440 and higher
- 2k x 2k x 8bit colour out of 16.7 million
- Unlimited number of permanent patterns, timings, colours, palettes, signal formats and sequences
- Bitmap support for multiple formats: .BMP .GIF .JPEG .PCD .PCX .PNG .TIF
- Text with Bitmap and Vector fonts
- The 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.
- Full support for: ATE, DDC and VESA DPMS
- Multiple generators in one PC
- Drivers for DOS, Win95 and NT 16 and 32 bit DLLs
- Complete single pixel control in any pattern and timing
- It is easy to build up test sequences for manufacturing, burn-in, quality control and service routines.

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Video Test Generator VTG-1108

BASIC SPECIFICATIONS

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

Dot Clock 82 MHz Double Pixel Clock
for 164 MHz Pixel Frequency

Graphics Display Size

■ Memory 2048 x 2048 x 8 bit planes

Horizontal Timing

■ Horizontal Scan Range 1 - 512 kHz
■ Horizontal Total 64 - 2500 pixels,
resolution 1pixel
■ Sync Pulse 16 - 512 pixels,
resolution 1 pixel
■ Horizontal Display 1 - 2048 pixels,
resolution 1 pixel
■ Back Porch 0 - 512 pixels,
Resolution 1 pixel

Vertical Timing

■ Scan Range 1 - 2500 lines per scan,
resolution 1 line
■ Sync Pulse 1 - 256 lines
resolution 1 line
■ Display 1 - 2048 lines,
resolution 1 line
■ Back Porch 0 - 512 lines,
resolution 1 line

Outputs

■ Digital Video 2 x 24 bit
(2 pixels, 3 x 8 bits, RGB)
■ Colour Palette 256 x 24
■ Colours 256 simultaneous colours out
of 16.7 million shades
■ H-pulse (Hsync) TTL-level with programmable
polarity
■ V-pulse (Vsync) TTL-level with programmable
polarity
■ Blank Composite blanking signal
with programmable polarity
■ Dot Clock TTL-level with programmable
polarity and phase delay
■ Connector 100pin HighDensity-connector

Display Data Format

■ Scan Mode Single- or dual-scan
(max. 12 bit output in
dual-scan mode)
■ Pixel Clocking 1, 2, 4 or 8 pixels per clock
(more than one pixel/clock
will reduce output bits
respectively, similarly the
adjustment resolution of
horizontal parameters will
be multiplied)

Data Storage

■ Number of Files: only restricted by usable disk capacity
Timing Files: unlimited
Test Patterns: unlimited
Colour 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

Software Tools

■ User interface: MS-DOS or WINDOWS based
■ Software Interface: software tools to control UNIGRAF VTG
Series units from external test program.
MS-DOS:
- MS-DOS driver for direct control
- C/C++ -function library for easy
interface to MS-DOS driver.
- sample C-programs for use of function
library
Windows:
- Windows DLL software library
- Visual Basic sample programs
- sample programs in C-language
■ OEM support: direct control of card functions
through an extensive function library
■ Conversion Programs:
- Auto CAD slides and HPGL files to
UNIGRAF VTG Series pattern files.
- Windows font files to VTG Series font
files.

System Requirements

■ IBM PC/AT or 100% compatible with 16 bit ISA bus
■ Standard VGA/SVGA Display
■ 4MB RAM
■ Power: +5V/3A max, +12V/100mA, -12V/10mA
■ EMI: meets EN 55011, Class B
■ Dimensions: 338 mm x 121 mm

Display Interfacing with VTG Interface Adapters

■ PanelLink serial VIA
■ LVDS serial VIA
■ RGB analog VIA
■ Parallel VIAs and KITs
■ Parallel 100pin cable direct connecting option
■ Special 3+8bit Control Bus for Customized
Interface Adapter

ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

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 0 A 10000 ; Draws 20 lines from top to bottom of display - left(0) to right (10000)
END
```

You can program in SCALED mode in which case the display has 10000 locations in the horizontal and vertical axes. SCALED patterns can be used with any timing. The ABSOLUTE mode programs use "real" pixel values.