

## VA-1 Scaler



### I/O resolutions up to UXGA

Small footprint (2.25H" x 8.5D" x 10.5W")

VP7configure™ utility supports user-defined:

- ✓ input timing, Area-of-Interest, output timing
- ✓ border colors, LVDS mapping

Real-time brightness and contrast adjustments via serial interface or external controls

Inputs: DVI-I standard (TMDS and Analog RGB)

Outputs: DVI-I standard (TMDS and Analog RGB)

LVDS (other I/O formats optional)

Non-interlaced or interlaced Analog RGB I/O

The VA-1 Scaler provides a wide range of video conversion functions.

**Features:** Based on state-of-the-art image processing technology, the VA-1 capabilities include:

- drives LVDS panels directly
- digitization of computer-generated video sources with separate syncs or sync-on-green
- digitization and de-interlacing of consumer video formats, including NTSC and PAL (with optional mezzanine board)
- frame rate conversion
- independent horizontal and vertical scaling
- programmable image position within larger background area for both input and output
- incoming video gain and offset adjustments
- fine phase clock adjustment for pixel sampling
- image can be reversed left to right
- image can be flipped top to bottom
- remote interface for both set-up and operational control

***Do you have a legacy video source that needs to be converted to a video format compatible with a new display or projector product?*** The VA-1 is a complete solution for your conversion needs.

**Example:** Your existing video source is 875 line RS-343. You need to convert to SXGA (1280 x 1024), where the original 1088 x 808 pixels of information in the source are mapped to a 1088 x 808 window within the SXGA output.

By using Westar's powerful VP7 Configuration utility, you can define:

- the input timing
- the output timing
- the area-of-interest (AOI) within the RS343 source and where to map the AOI within the output resolution

Once complete, the settings can be saved in non-volatile memory, and the VA-1 is configured to convert your unique video to a new video format compatible with new gear.

### VA-1 Operation

After configuration, the VA-1 typically operates as follows:

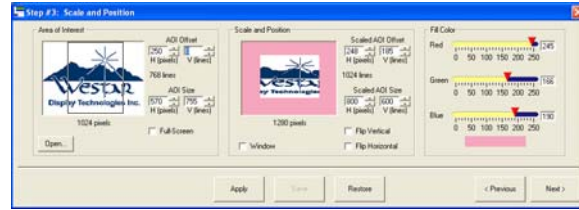
1. Upon power up, the VA-1 configures itself based on its internal BIOS
2. Prior to detection of valid video, the VA-1 can drive a user-defined color to your display
3. When a valid video signal is detected, the VA-1 converts the incoming video per the pre-defined settings contained in the BIOS
4. When video is lost, the display can drive a pre-defined color (blue-screen), or some other function as defined in the BIOS created with the configuration utility.

### How to get started

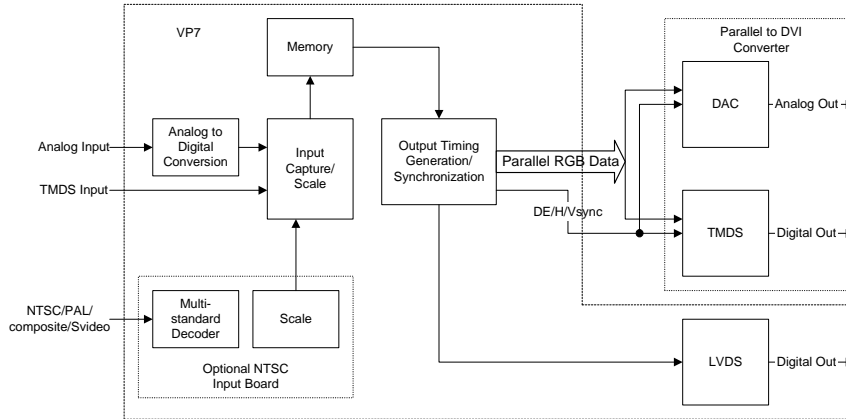
Please contact us at (636) 300-5164. We will discuss your requirements and respond with a quotation

The heart of the VA-1 is Westar's VP7 video adapter. The VP7configure™ utility is provided with a VA-1.

The block diagram below shows the block diagram of the VA-1



Typical screen from VP7configure software



VA-1 block diagram (video path only)

**Ordering Information:**

- VA-1 ;standard unit
- VA-1-NTSC/PAL ;standard unit with optional NTSC/PAL inputs

**Input Specifications** (Subject to change without notice)

Video Type	Standard: Analog RGB (0.7 Volt levels, Interlaced or Non-Interlaced), TMDS Optional: NTSC/PAL composite, S-Video
Pixel Rate	Up to 165 MHz
Clocks per Line	Up to 4096
Lines per frame	Up to 2048
Sync Type	HV, Composite Sync, or Sync-on-Green
Phase Adjustments	Sample clock can be adjusted to ensure center sampling
Connectors	DVI-I (DVI to HD15 adapter included)

**Output Specifications**

Video Type	Standard: Analog RGB (0.7 Volt levels, Interlaced or Non-Interlaced), TMDS, LVDS
Pixel Rate	Up to 165 MHz
Clocks per Line	Up to 4096
Lines per frame	Up to 2048
Sync Type	HV, Composite Sync, or Sync-on-Green
Connectors	DVI-I (DVI to HD15 adapter included), HD-26 (LVDS Out)

**Electro Mechanical**

Input Power	IEC Connector, 100-240 VAC, 47-63 Hz, less than 60 Watts
Control	RS-232
Size	8.5"W x 10"D x 2.25"H
Weight	Less than 5 lbs.

**Warranty**

One year

**Functional**

Specialty Features	Windowing, Programmable border colors, Brightness and Contrast adjustments
Color processing depth	8 bits per color
Re-sizing limits	50% horizontal shrink, 50% vertical shrink

**Included documentation and software**

Users Guide and VP7configure utility software and manual