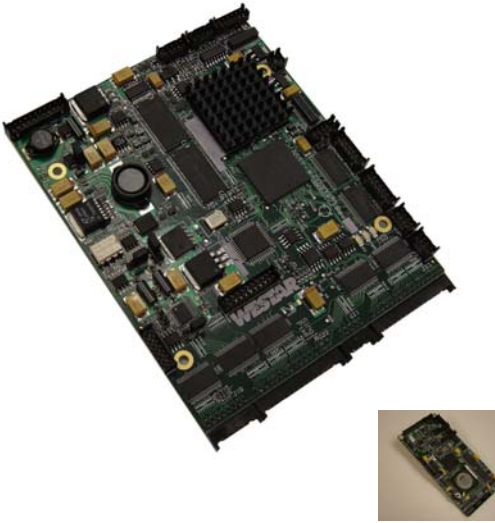


## Video Processor – VP7



- Digitizes computer-generated video sources
- Drives commercial AMLCD's and Inverters
- Adjustments and re-configuration in-the-field via utility software
- Supports up to UXGA displays
- Supports windowing, frame rate conversion, re-sizing, color conversions
- VP7: 5" x 4"
- VP7-Short (VP7-S): 5.25" x 2.5"
- Standard Inputs: TMDS or Analog
- Standard Outputs: Parallel Digital or LVDS (single and dual channel)
- Non-Interlaced, Interlaced RGB I/O

### VP7 Video Processor (Inset, VP7-S)

The VP7 Video Processing Module provides direct connection from analog video sources to a wide range of commercial digital AMLCD display modules.

**Features:** Based on state-of-the-art image processing technology, the VP7 capabilities include:

- digitization of computer-generated video sources with separate syncs or sync-on-green
- non-interlaced and interlaced RGB inputs and outputs
- 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
- programmable power sequencing to panel
- fine phase clock adjustment for pixel sampling
- image can be reversed left to right
- image can be flipped top to bottom
- interfaces to most common inverters
- remote interface for both set-up and operational control

**One size fits all?** Your customers have a wide range of video formats and special video requirements. You want a single video adapter that you can configure to work across a wide range of applications, minimizing new design work and sparing requirements.

**Westar has the Solution!**

**VP7 customers receive Westar's powerful VP7 Configuration utility. This utility allows you to:**

- configure a VP7 for a unique application,
- change the Built-In Operating System (BIOS) to account for a new video requirement or a new target display,
- make adjustments to optimize the VP7 for a particular installation,
- and much more (see reverse side for more details)

*If this sounds confusing, don't worry, our support team will help you master the configuration utility, or we can set up the VP7 for you at the factory!*

### VP7 Operation

Typically, the VP7 operates as follows:

1. Upon power up, the VP7 configures itself based on its internal BIOS
2. When a valid video signal is detected, the VP7 applies power to the display per the power sequencing defined in the set-up BIOS.
3. When loss of video is detected, the display can: power down, 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.



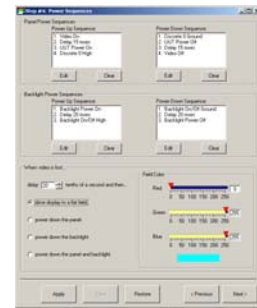
Step 1 Input Timing



Step 2 Output Timing



Step 3 Windowing and Scaling



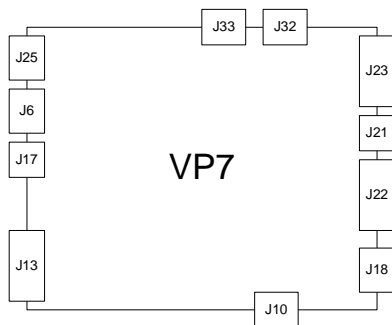
Step 4 Power Sequence

Step	Function	Sets up...
1	Input	the input timing and electrical definitions
2	Output	the output timing and electrical definitions
3	Window/Scale	the areas of interest within the input image and the mapping to the output resolution, thereby defining windowing and scaling functions
4	Power Sequence	how to sequence power and video to the target display

**VP7 Configuration Utility:** The VP7 Configuration utility is supplied to VP7 customers. VP7configure is installed on Windows XP platforms, and connects to the VP7 via an available RS-232 serial cable.

The utility uses a 4-step process to set up the VP7 for your application.

<b>Physical Dimensions</b>	VP7: 5" x 4" x 0.8", VP7-S: 5.25" x 2.5" x 0.8"	
<b>Temperature Range</b>	Operating: 0° C to +70° C; Storage: -40° C to +100° C	
<b>Video Inputs</b>	Computer - Up to UXGA resolutions @ 60Hz - Analog Input (162 MHz) DVI Input (165 MHz) - Standard and custom timing - Syncs (Digital Separate, Digital Composite, Analog Composite) NTSC and PAL (with optional mezzanine)	
<b>Video Outputs</b>	Single (24 bit panel): all configurations; Dual (48 bit) bus panels: all configurations except VP7-S Single LVDS outputs: all configurations Dual LVDS outputs: all configurations except VP7-S Pixel rate single = 108/135 MHz (Standard speed/High speed) Pixel rate dual = 135/162 MHz (Standard speed/High speed)	
<b>Input Power</b>	VP7: +12 VDC, 1.5 Amp typical when driving XGA panel and inverter VP7-S: +5 VDC	
<b>Control Interface</b>	RS-232	
<b>Ordering Information</b>	VP7 (Standard speed configuration)	VP7H (High speed configuration)
	VP7-S (Short, standard speed configuration)	



J6	10 Pin Hirose DF11 for RS-232 Control
J10	14 Pin Hirose DF11 for Backlight Inverter Control
J13	22 Pin Hirose DF11 for Power and Contrast
J17	10 Pin Hirose DF11 for Input Analog Video
J18	16 Pin Hirose DF11 for discrete i/o to display
J21	10 Pin Hirose DF11 for control to display
J22	32 Pin Hirose DF11 for digital data to display
J23	32 Pin Hirose DF11 for digital data to display
J25	12 Pin Hirose DF11 for TMDS input
J32	14 Pin Hirose DF11 for LVDS output
J33	14 Pin Hirose DF11 for LVDS output