

TRUE COLOR PALETTE-DAC WITH 16-BIT PIXEL PORT

For complete specifications please contact your nearest sales office

- Operation up to 135MHz
- 2:1 multiplexing using internal PLL
- Standard VGA and high color operation up to 110MHz
- Synchronous PixMix switching between modes
- Low power sleep mode
- Triple 8-bit DACs with comparators
- External or internal VRef DAC control

DESCRIPTION

The STG 1700 is a Super VGA compatible Palette-DAC designed for PC systems requiring pixel rates up to 135MHz. It features a 16-bit pixel port and supports a number of different pixel modes which can be grouped into three categories:

- 8-bit pixel port giving standard SVGA and high/true color modes
- 16-bit pixel port giving faster high color/true color operation
- Serializing 16-bit pixel port to give two 8-bit pixels at 2 x PClk frequency

The PixMix capability allows pixel-by-pixel switching between modes.

The STG 1700 includes a 135MHz triple 8-bit video DAC, controlled by either an external 1.235V voltage reference or an on-chip voltage reference. A VGA compatible micro port makes use of "magic access" cycles (repeated accesses to the mask register) to control the extended features.

EXAMPLE MODES AND FREQUENCIES (ALL NON-INTERLACED)

Pixel port mode	Screen resolution	Simultaneous colors	Refresh rate (Hz)	PClk and data frequency (MHz)	Video frequency (MHz)
8-bit pixel port	1280x1024	256	60	110	110
	1024x768	256	80	90	90
	800x600	65K	80	110	55
	640x480	16.7M	80	102	34
16-bit pixel port	1024x768	65K	80	90	90
	800x600	16.7M	80	110	55
Serializing 16-bit pixel port	1280x1024	256	75	67.5	135

