

Jag-TX/TS

Cost Effective Digital Interface (DVI) Display Processor with Sage ActiveColor™ Management and Integrated TMD5 Trans-Receiver with HDCP

The Jag-TX/TS is Sage's highly integrated Digital Display controller optimized for digital (DVI) interfaces, offering true Plug 'N Play capability. The Jag-TX/TS has integrated TMD5 Rx with High-Bandwidth Digital Content Protection (HDCP). The Jag-TX/TS is optimized to provide multiple (digital/video) inputs for memory less (Framelock) Flat panel monitor solutions. Jag-TX and Jag-TS are optimized to drive both XGA and SXGA panels respectively thus providing a single board design. The Jag-TX/TS has integrated Sage 3rd generation non linear scaling engine, Sage proprietary ActiveColor™ management, a highly flexible OSD, and superior video support. The Jag-TX/TS meets the needs of the all-in-one computer PC segment and the standalone monitor segment. The Jag-TX/TS is Firmware Compatible to Jag-D.

Features

Multi Input Support

Glue less interface to DVI

Support for 1 pixel/clock

Additional port for digitized PAL/NTSC video inputs

Integrated TMD5 Receiver

With HDCP

3rd Generation Non Linear Scaling Technology

Supports image expansion and reduction

Up scale or down scale from any industry standard input resolutions up to SXGA to any industry standard panel resolutions up to SXGA

Independent interpolated X and Y scaling to any format (incl. Non-standard formats)

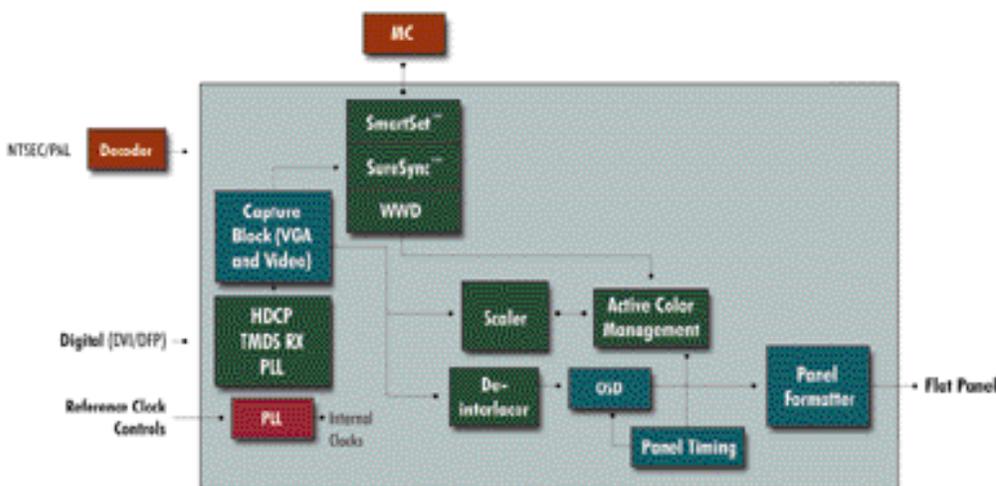
Conversion between 4:3 and 16:9 aspect ratio

ActiveColor™ Management

Multi-dimensional color mapping to precisely control the characteristics of individual colors

Dual 30 bit Gamma Support

Video Window Detection





Advance Video Features

Glue less interface to widely available Video digitizers

CCIR 656 PAL/NTSC Input capability

Integrated YUV to RGB converter

On chip De-interlacing support and Expansion of TV images

Video Window Detection

Highly flexible On Screen Display (OSD)

Character based multi color OSD

Pallet based font colors, 16 foreground and 8 background colors

Support for displaying multi color Icons and logos, up to 16 colors per character

Supports transparency and blending

Independent X and Y overlay/menu zoom (by a factor of 1 to 8)

Flexible character generator for variable sizes up to 16 x 32

Character attributes for 1, 2, 4 bits/pixel

Fully programmable OSD memory of 2k x 16-bits

Multiple language Support

SureSync™ and SmartSet™

Automatically detects and syncs to changes in incoming resolution and refresh rate

Composite sync input measurement and extraction

Fast, Automatic Optimization of Phase, Hsize, Vert & Horz Position

Flexible Panel Display Support

Support for 1 pixel/clock (18 & 24 bit)

Support for 24 bit/pixel RGB (Digital) CRT output

Flexible TFT/CRT timing controller

Flat Panel Resolutions Supported

Jag-TX:

Supports up to 80MHz at the input and up to 100MHz at the output

Input resolutions: 1024x768 75Hz

Output Resolution up to 1024x768

Jag-TS:

Supports up to 135MHz at the input and the output

Input resolutions: 1280x1024 75Hz

Output Resolution up to 1280x1024

Hi Fidelity Color Mapping

24 bit/pixel (8 bit each for R, G, B)

Dual 30 bit Gamma correction for true color display. Different Gamma values can be applied to dual windows on the screen.

Optional 24 bit to 18 bit high quality dither support

High fidelity Color Mapping – up to 16M colors

System Interface Support

External 8-bit micro controller host

Four GPIO pins (or 2 PWM and 2 GPIO)

2 wire I2C compatible host interface

144 LQFP Package



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