



# Jag200/Jag200Mx

## High Performance, SXGA, UXGA, WUXGA Digital Display Processor

The highly flexible Jag200/Jag200Mx is the first product from the Jaguar family of Digital Display Processors. The Jag200/Jag200Mx, Digital Display Processors accept input from multiple sources and displays on any flat panel display. The Jag200 input port has the bandwidth to accept inputs as high as UXGA@75Hz. The high performance Jag200Mx input port has the bandwidth to accept inputs as high as WUXGA@60Hz. Jag200/Jag200Mx has integrated a high quality 3rd generation scaling engine, a highly flexible OSD, and superior video support including picture in picture.

### Features

#### Supports Multiple inputs simultaneously

Accepts two DVI compliant digital inputs or two analog inputs simultaneously

Glue-less interface to TMDS Receivers or ADCs

Support for 1 or 2 pixel/clock

Accepts PAL/NTSC video input from all major Video Digitizer sources

#### 3rd Generation Scaling Technology

Supports image expansion and reduction

Up scale or down scale from any industry standard input resolutions up to UXGA/WUXGA to any industry standard panel resolutions up to UXGA/WUXGA

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

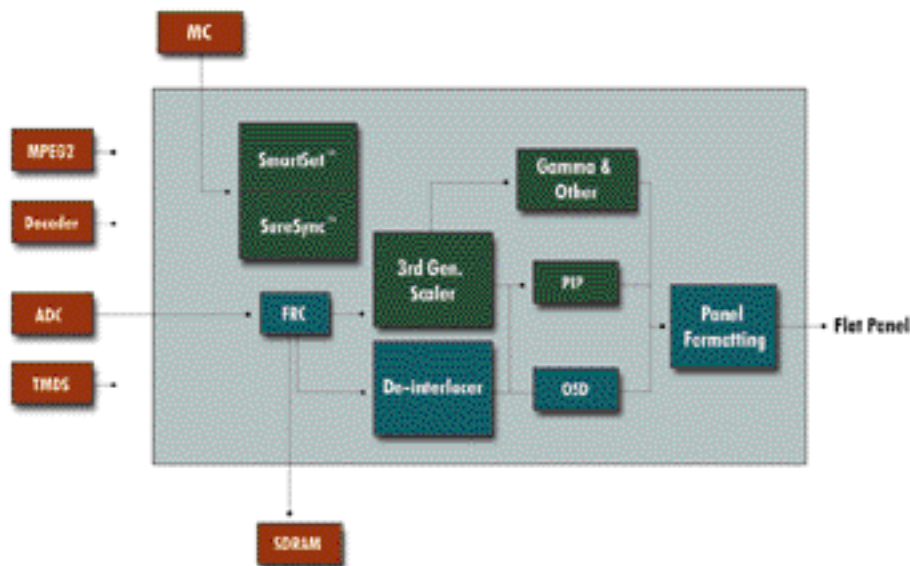
Conversion between 4:3 and 16:9 aspect ratio

#### High Performance Architecture

1.2 Gbytes/Sec bandwidth

Input port has bandwidth >200 Mpixels/sec

Output port bandwidth >200 Mpixels/sec





### Advanced Video Features

Glue-less interface to widely available Video digitizers

CCIR 601/656 PAL/NTSC Input capability

Integrated YUV to RGB converter

On chip De-interlacing support and Expansion of TV images

Video overlay to the VGA data

### Highly flexible On Screen Display (OSD)

Character based OSD with 16 foreground and 8 background colors

Support for up to 16 colors for character/displaying logos and ICONS

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 16x32

Character attributes for 1, 2, 4 bits/pixel

Fully programmable OSD memory of 4k x 16bits

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 and 24 bit), 2 pixel/clock (36 and 48 bit) TFT panels

Support for 24 bit/pixel RGB CRT output

Flexible TFT/CRT timing controller

### Panel Resolutions supported

Input resolutions: 1920x1200 @60Hz, 1600x1200 @75Hz, 1280x1024 @ 85Hz, and 1024x768 85Hz

Output Resolutions up to 1920x1200 and 1600x1200

### Hi Fidelity Color Mapping

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

10-bit Gamma correction for true color display

Optional 24-bit to 18-bit high quality dither support

High fidelity Color Mapping – up to 16M colors

### Flexible Memory Interface

Supports a 32, 48 and 64 bit wide SDRAM / SGRAM with 4.6 or 8 MB of memory

Support memory as high as 143/166 MHz

### System Interface Support

External 8-bit micro controller host

GPIO pins can be programmed as Interrupt, PWM channels etc.

2 wire serial host interface

### 3.3V Operation

### 352-ball BGA Package

Maximum SDRAM Clock  
143Mhz/166MHz



1601 McCarthy Blvd  
Milpitas, CA 95035  
(408) 519-6500  
(408) 383-5310 Fax