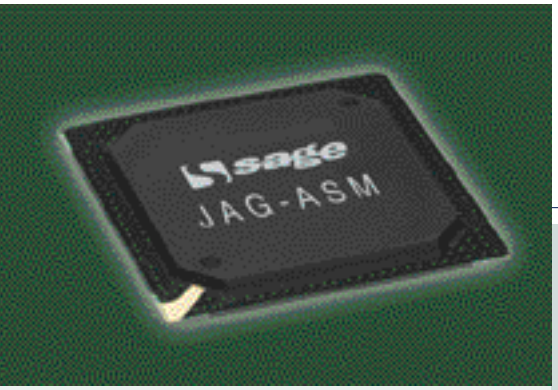
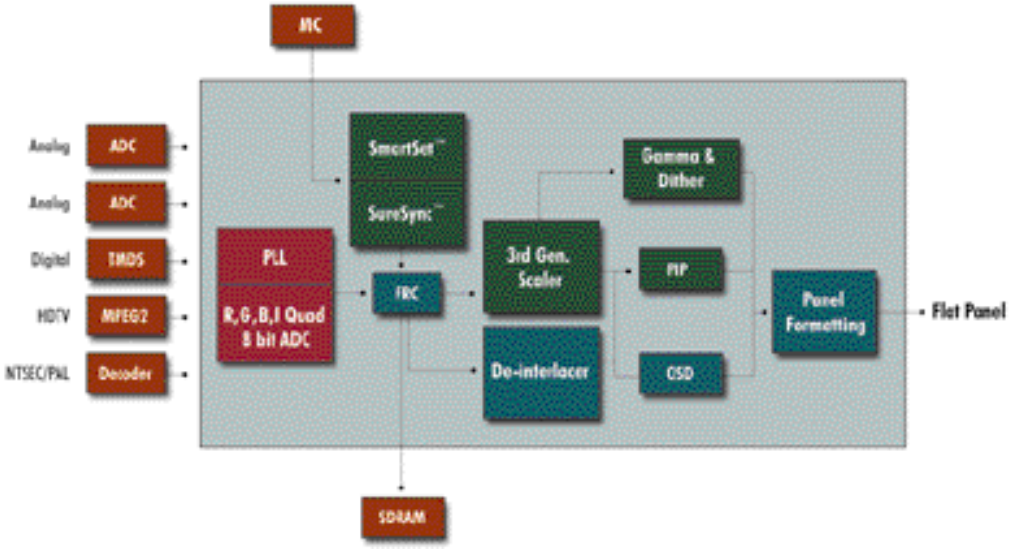


Jag-ASM and Jag-AUM

Highly Integrated, Mixed Signal Flat Panel Display Processor

Jag-ASM and Jag-AUM are highly integrated display processors with advanced analog and digital signal processing. They integrate a complete analog front-end solution for VGA analog interface making it the most cost-effective high-end solution. Jag-ASM and Jag-AUM provide high design scalability by accepting input images from multiple sources and displaying them on any LCD flat panel display up to SXGA@75Hz and UXGA@60Hz. Both feature a high quality 3rd generation scaling engine, a window's like OSD, and video support including color space conversion, de-interlacing and picture in picture (PIP). Jag-ASM and Jag-AUM are also pin and Firm-ware compatible with Jag200 and Jag200Mx.



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Digital Display Processing™

Features

Complete Analog Front end integrated on-chip

- Dual/Analog VGA inputs with on chip digital clamp to eliminate line noise
- Triple, 8-bit, High Speed, high performance 135MHz (Jag-ASM) and 160MHz (Jag-AUM) ADCs
- Digital Line Locked PLL: low jitter; programmable loop dynamics
- Full support for Sync On Green (SOG)/Composite video output
- Advanced support for SmartSet™ and SureSync™

Flexible Multiple Input Capture engine

- Advanced front end Capture engine supports up to five inputs
- Simultaneously accepts two analog RGB inputs
- Simultaneously accepts two DVI compliant digital inputs. Direct interface to TMDS Receivers
- Accepts PAL/NTSC video input from all major Video Digitizer sources
- SureSync™ and SmartSet™ can monitor activity at all input ports
- Priority can be set in case of multiple video inputs

Pin and Firmware compatibility between Jag-ASM, Jag-AUM and Jag200/Jag200Mx

3rd Generation Scaling Technology

- Supports image expansion and reduction
- Up scale or down scale from any industry standard DVI input resolutions up to UXGA or Analog input resolutions up to SXGA to any industry standard panel resolutions up to UXGA
- Independent interpolated X and Y scaling to any format (incl. Non-standard formats)
- Conversion between 4:3 and 16:9 aspect ratio

Advance 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 window overlay on the graphics data (PIP)

Windows like 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 16 x 32
- Character attributes for 1, 2, 4 bits/pixel
- Fully programmable OSD memory of 8k x 16bits
- Multiple language support

SureSync™ and Advanced 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 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

Flat Panel Resolutions Supported

- **Input resolutions:**
  Jag-ASM: Using internal ADC: 1280x1024 75Hz, 1024x768 85Hz
- Jag-AUM: Using internal ADC:1600x1200 60Hz, 1280x1024 75Hz and 1024x768 85Hz
- Using external TMDS: 1600x1200 75Hz, 1280x1024 85Hz
- Output Resolution: Up to 1280x1024 (Jag-ASM) or 1600x1200 (Jag-AUM)

Hi Fidelity Color Mapping

- 24 bit/pixel (8 bit each for R, G, B)
- 30 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 32/48/64 bit wide SDRAM / SGRAM with 4, 6 or 8MB of memory
- Supports memory clock speed as high as 143MHz

System Interface Support

- External 8 bit micro controller host
- GPIO pins can be programmed as Interrupt, PWM channels etc
- 2 wire serial host Interface

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Digital Display Processing™

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