SIVI-AD3150

TSMC/SMIC 180nm (1P5M)

MAIN FEATURES

- Designed on SMIC/TSMC 180nm
- 150Mpixel/s conversion rate with 10-bit ADCs HDTV front end
- Automatic gain and offset calibration
- Resolution up to UXGA@75Hz
- Low jitter fully integrated clock generator PLL
- 32 interpixel sampling positions
- Regenerated H-sync output
- RGB/YprPb graphic processing
- C-Y/CVBS video signal digitization, integrated anti-aliasing filter
- RF SIF audio signal digitization capability
- Low jitter fully integrated clock generator PLL
- Core voltage is 1.8V, I/O voltage is 3.3V
- IP size is 11mm²
- Operational temperature range from -40°C to 125°C

IP DESCRIPTION

SiVi-AD3150 incorporates 3 major analog front ends namely:

- One channel 10-bit 36Msps ADC with a programmable gain amplifier in front of it for RF SIF audio signal digitization

- Two channels 10-bit 36Msps ADC with 4 inputs multiplexer, clamping function, gain and offset programming and anti-aliasing filter for composite video signaling interface.

- Three channels 150Msps 10 bit ADCs with 4 inputs multiplexer, clamping function, gain and offset programming, Sync On Green slicer and clock generator supporting all standards up to 150Msps pixel clock frequency for HDTV digital video applications. An on chip ADC calibration is included to guarantee best performance.

SiVi-AD3150 is silicon proven in 180nm TSMC and SMIC process technologies

APPLICATIONS

- Advanced TVs
- Plasma display panels
- LCDTV
- HDTV
- RGB/YPrPb graphics processing
- C-Y/CVBS signal processing
- LCD monitors and projectors
- Scan converters

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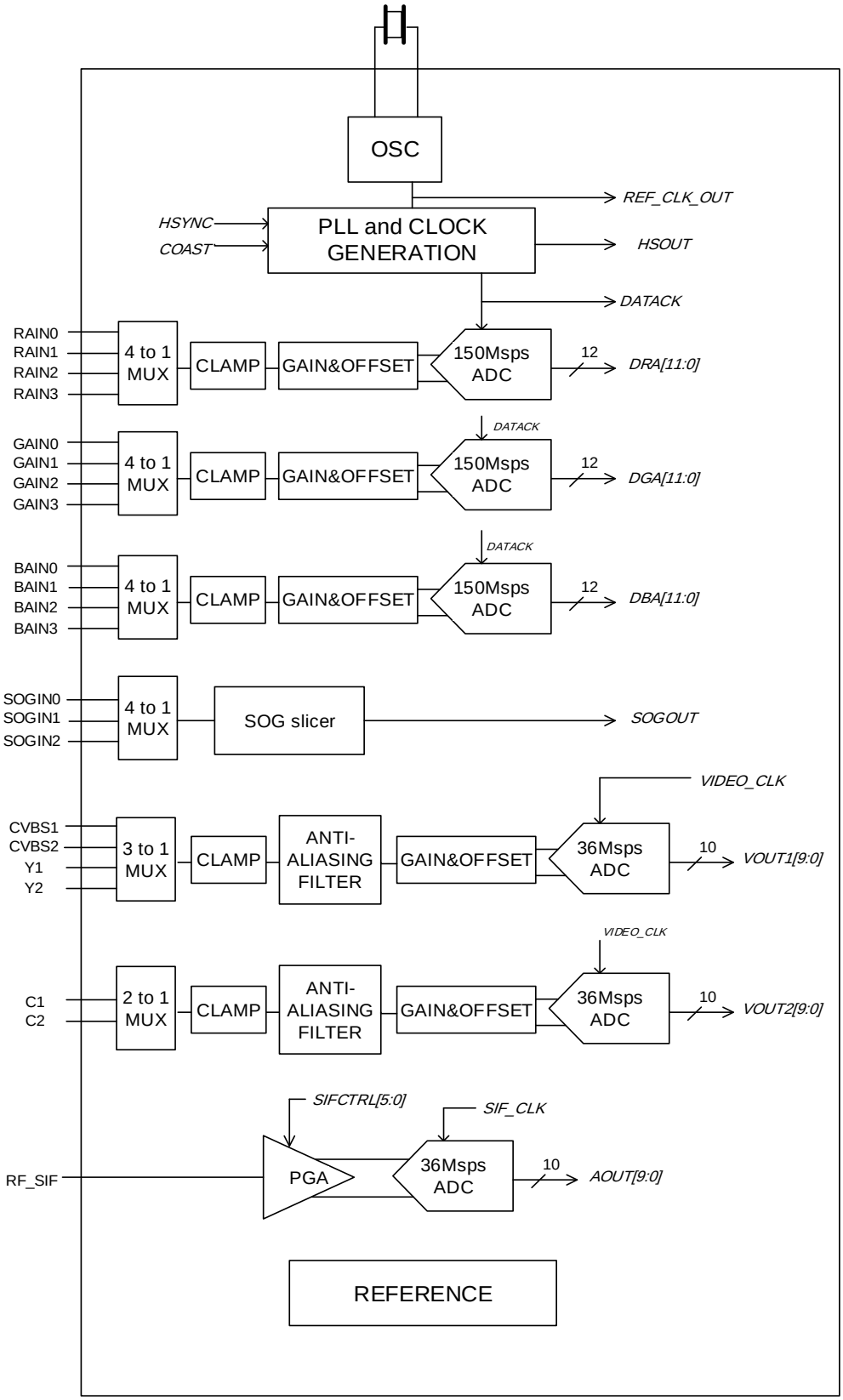

Block Diagram for SiVi-AD3150

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