

## MVIP1010 10 BIT Analog Input Section

The MVIP1010 Analog front end core is a complete input section accepting both Composite and S-Video sources. It interfaces with our bandpass, 3 and 5-line comb filter decoders or can be tailored for other digital applications.

This core includes a 3:1 input multiplexer, AGC, Clamp, PLL, OSC, and ADC'S. The input multiplexer accepts 3 composite or 2 composite and 1 S-Video sources. The AGC has a 6-bit 64 level control range to maintain maximum resolution to the ADC'S. The Clamp circuit maintains a proper sync tip or chroma level for proper digital conversion. The OSC and PLL can operate over a wide frequency range.

The 10-bit ADC'S are designed for professional quality conversion of video sources and are available in 2.5 Volt .25 um and 1.8 Volt .18 um processes. The maximum clock speed for these converters is 42 MHz.

Output timing can be adapted for different applications. With our library of other video modules, and staff of experienced video engineers, MetaVideo stands ready to customize this module to your precise needs.

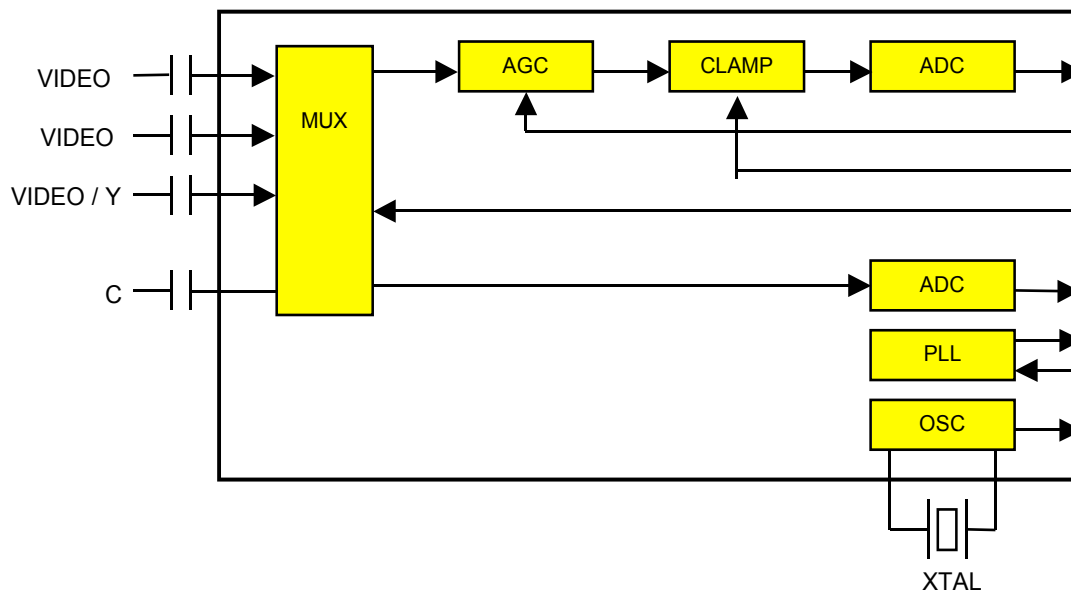
### Features:

- Composite or S-Video Inputs;
- Compatible with 525 or 625 Formats;
- 3:1 Video Input Multiplexer;
- Automatic Control of Input Gain to achieve maximum resolution at ADC;
- 2 professional ADC'S;
- PLL and OSC section;

- Clamp for stable sync;
- 6 Bit 64 level AGC;
- 42 MHz 10 bit 2.5V .25 um or 1.8V .18 um ADC'S

### Applications:

- Digital TV,
- LCD Display Front End;
- PC Video Capture;



## MVIP1010 10 Bit Analog to Digital Converter Specifications

### Key Specifications (with 0.25um process)

Sampling Rate	42	Ms/s
Input Signal Bandwidth	10	MHz
Resolution	10	Bits
Variable Gain Resolution	6	Bits
Signal-to-Noise + Distortion Rate (SINAD)	52	dB
Differential Nonlinearity Error (DNL)	+/- 0.5	LSB
Differential Gain Error	1.0	%
Differential Phase Error	0.5	Degrees
Clamp Hold Time	80	us
Power Consumption – ACTIVE mode	190	mW
Power Consumption – STANDBY mode	15	uW
Supply Voltage	2.5	V
Area (0.25um)	>6.0	sqmm
Area (0.18um)	>5.6	sqmm