

AF-1501

Analog Frame Grabber

MACHINE VISION MEETS COMPACTRIO

NTSC / RS-170
PAL / CCIR
SECAM



Analog Camera



National Instruments CompactRIO™

- ✓ Programmable ROI
- ✓ 9-bit ADC
- ✓ "PSS" Progressive Skip Sampling
- ✓ Hardware Accelerated Thresholding
- ✓ -40 to 70 Degrees C

AF-1501 Analog Frame Grabber



Model	AF-1501	
General Specifications		
Operating System	RT target cRIO, VxWorks	
Software, Driver	LabVIEW RT, LabVIEW FPGA	
Available Formats	Standard	Frame Rate
	NTSC / RS-170 CCIR / PAL SECAM	30 fps, interlaced 25 fps, interlaced 25 fps, interlaced
Frame Rate	Up to 15 fps at full frame resolution* Up to 30 fps **	
	* Requires using PSS, Speed Optimized Mode, and/or Hardware Accelerated Thresholding † Deployment target dependent	
Video Sampling	254 gray levels (8-bit), 16 gray levels (4-bit), Monochrome	
Analog Front End	9-bit ADC	
Analog Video Input	1 input, single ended BNC	
Impedance	75 Ohm, +/- 1%	
Form Factor	CompactRIO module, Single-Board RIO module DB-15, female, high density	

Session In



Additional Features

PSS Progressive Skip Sampling



Pixel resolution is reduced to optimize frame rate. The resulting progressive image is ideal for motion sensitive applications.

Programmable ROI



User-configurable region of interest from 1 x 1 pixel to the entire frame size.

Hardware Accelerated Thresholding



Image thresholding at full frame rate using on-module hardware. Resulting binary image reduces processor load.

Speed Optimized Mode



Gray level bit depth is reduced from 8 bits per pixel to 4 bits per pixel. Resulting image transfer rate is doubled.