



Diamond Point

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FrameLocker

Monochrome Video Frame Grabber



The framelocker provides a system with accurate, noiseless and high quality video images.

This low cost black & white Video Frame Grabber board has a very flexible video input stage that allows for tuning the imaging system for quality and crispness.

This board forms the heart of the video imaging system in the MAPS-instrument onboard the Russian Space Station MIR. Approved by both NASA and the Russian Space Agency.

The FrameLocker is a versatile, cost-efficient and easy-to-use PC/104-card intended for monochrome video frame capturing. This compact card is suitable for use in many embedded and distributed applications including remote surveillance, machine vision, image processing and many more.

The card features automatic detection of NTSC and PAL video signals. The video signal is digitized in real time from two software selectable video inputs, and the image is stored in onboard RAM, accessed from the host computer.

Frame rates of up to 25 images per second may be selected as a function of the desired image resolution. The board supports polled and interrupt driven uploading of images.

Contrast and brightness can be adjusted from software. The automatic gain control (AGC) can also be deactivated from software.

The image resolution is programmable supporting arbitrary horizontal and vertical scaling. The card has also a user-programmable cropping of the video window and an arbitrary programmable temporal decimation supporting reduced frame-rate video sequences.

The FrameLocker features very low power consumption, and a power down sleep option can place the board in an energy saving mode. Software routines and examples in 'C' allow the card to be easily implemented in user applications.



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Power requirement:	+5 Vdc, +-5%, 310 mA oper. (205 mA stdby.), 1.65 W (1.02W)
Dimensions:	91 x 96 x 16 mm (3.6" x 3.8" x 0.6"), PC/104
Operating environment:	0...70C, 5...95% relative humidity, non-condensing
Number of video inputs:	2 channels, 75 Ohms, software selectable
Video signal type:	Composite, Monochrome
Video signal level:	1 Vpp nominal
A/D converters resolution:	8 bits
Sampling speeds:	2f oversampling 35.46 MHz and 28.63 MHz
Image resolution:	Programmable, max. 768 x 576 in PAL, 720 x 480 in NTSC
Internal image format:	8 bit gray scale
Image memory:	512 kByte FIFO
Brightness adj. range:	255 steps, representing +-50% of full luminance range
Contrast adj. range:	512 steps, representing 0..+236% of signal
Software:	Examples routines in 'C', with source, JPEG available

Order as

FRAMELOCKER

Monochrome video grabber PC104 card

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