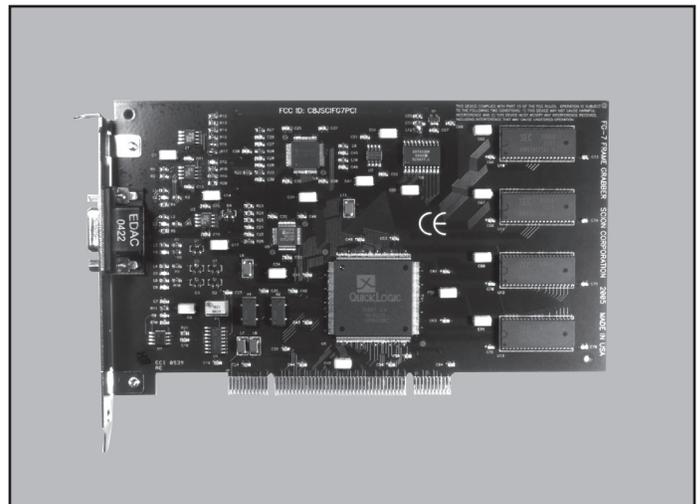


The FG-7 is a quantitative quality monochrome frame grabber for the PCI bus suitable for a wide variety of scientific imaging applications. It is designed for use with scientific grade CCD cameras with either RS-170 or CCIR signaling. The FG-7 is easy to install and use, and comes with a variety of software support for both Microsoft Windows and Mac OS X platforms. Each FG-7 comes with a full 30 day, money back guarantee.

## Features

- Low noise 8 bit grayscale image digitizer for PCI bus
- Macintosh and PC compatible, software provided
- Integrated video output for video printers or monitors
- Control of on-chip integrating cameras
- Software control of digitization range for gain and black level
- Short 7" board compatible with both 5 and 3.3 volt PCI slots
- Works with both RS-170 and CCIR cameras
- Cable supporting all functions included at no extra charge
- Full 30-day money-back guarantee of satisfaction



## Description

The FG-7 for the PCI bus provides precise monochrome image digitization from both RS-170 and CCIR video sources. Capturing images in 8 bit depth at resolutions of 640 x 480 (RS-170) or 768 X 512 (CCIR), it is intended for use in a variety of scientific applications such as EtBr gel documentation. The ability of the FG-7 to control several models of on-chip integrating cameras makes it well suited in low-light applications.

The FG-7 provides black level and gain control through control of the range of digitization. Over 30,000 ranges of digitization allow the FG-7 to accommodate almost any video input level. The FG-7 also includes an integrated video output that allows the use of external video peripherals such as monitors or video printers.

The FG-7 comes with a five signal cable that supports all functions of the frame grabber: video in, video out, external trigger, integration, and video print activation. Software support, described at right, is provided at no extra charge.

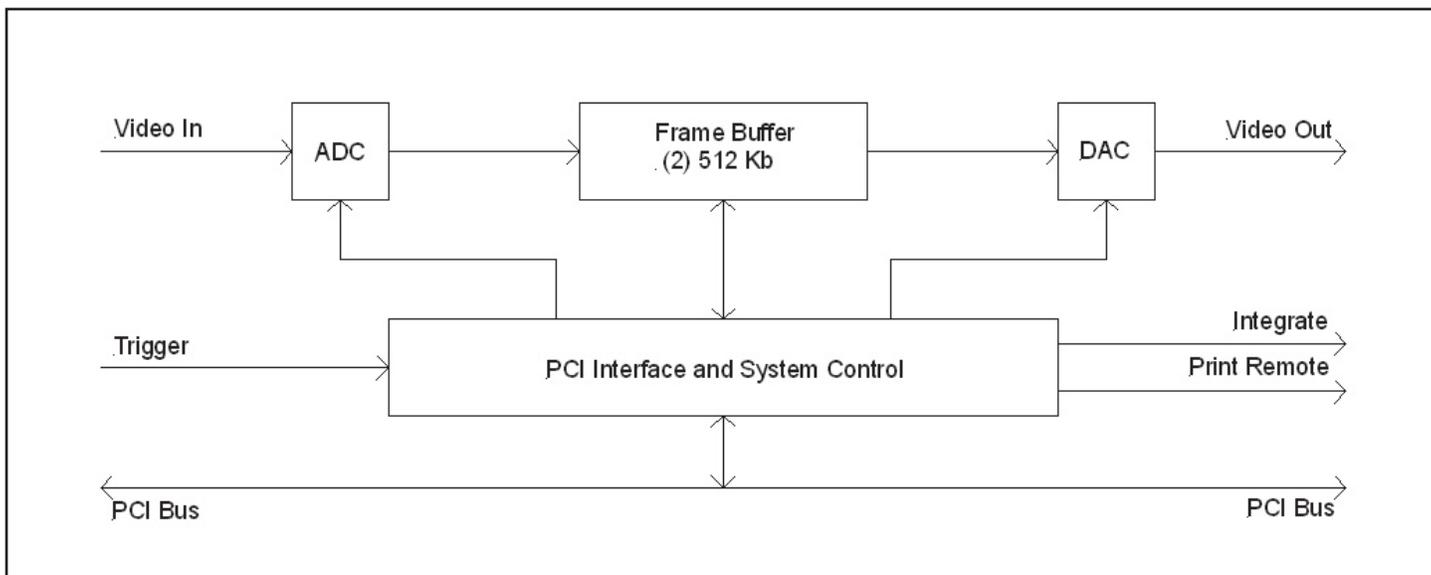
## Software Support

The FG-7 comes with several software options suitable for use in various imaging applications. First are FG-7 modules for ImageJ, the popular, free imaging application from the National Institutes of Health. ImageJ is a general purpose image acquisition and analysis package widely used in the biological sciences. FG-7 modules for ImageJ allow live video within ImageJ, full control over image parameters, and flexible capturing options.

Secondly, each FG-7 comes with TWAIN modules. TWAIN is an industry standard image acquisition plug-in architecture. With the TWAIN modules, the FG-7 can be used inside applications such as Adobe PhotoShop. The TWAIN modules are full-featured and easy to use.

Finally, for those that wish to integrate the FG-7 into their own imaging applications, the FG-7 package includes full developer libraries and documentation at no additional cost. Libraries are included for both Microsoft Windows and Mac OS X platforms, as are the ImageJ and TWAIN modules.

## Block Diagram



## Specifications

Digitizing Speed (RS-170): 1/30 s  
Digitizing Speed (CCIR): 1/25 s

Max Display Rate (RS-170): 30 fps  
Max Display Rate (CCIR): 25 fps  
Max Data Transfer Rate: 35 Mb/s

Pixel Depth: 8 bits  
Resolution (RS-170): 640 x 480 pixels  
Resolution (CCIR): 768 x 576 pixels  
Pixel Aspect Ratio: 1 to 1  
Frame Buffers: 2, 1 Mb total

Pixel Clock (RS-170): 12.288 MHz  
Pixel Clock (CCIR): 15 MHz  
Pixel Jitter: +/- 4 ns max

Video Inputs: 1 AC coupled  
Video Input Level: 1 V peak to peak

Video Outputs: 1 DC coupled  
Video Output Level: 1 V peak to peak

Integration Output: 1 TTL  
Remote Print Output: 1 TTL  
External Trigger: TTL falling edge

Installation: 1 PCI slot  
Connector: 9 pin D shell

Dimensions: 6.875" x 4.2"  
Operating Temperature: 0 to 50 deg C  
Power: 7.5 W max

## About Scion Corporation

Since 1991 Scion Corporation has been manufacturing imaging products for the scientific marketplace. It is our goal to provide quality products that will not strain your research budget.

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Windows 2000 and Windows XP are trademarks of Microsoft Corporation. Photoshop is a trademark of Adobe, Inc.

## System Requirements

The FG-7 is compatible with all Macintosh and PC compatible computers with a PCI expansion slot. It is not compatible with PCI Express slots. The FG-7 requires a monochrome video source with RS-170 or CCIR characteristics. The FG-7 is primarily designed for use with CCD cameras or other precision video equipment and as such provides no time base correction of video signals