

Compatible Windows Software

- DT Vision Foundry
- GLOBAL LAB Image/2

DT3120

Low-Cost Monochrome and Composite Color Frame Grabber for the PCI Bus

Key Features

- Single channel image acquisition.
- Handles standard monochrome, composite color, and S-video input sources.
- PCI Bus Master and Scatter/Gather architecture for intelligent image data management.
- DT-Open Layers compliance protects your investment.
- Ships with valuable software bundle featuring WDM drivers, software evaluations, a Frame Grabber SDK, and DT-Acquire ready-to-run application.

Overview

The DT3120 is a high quality, low-cost PCI frame grabber designed for industrial, scientific, and medical imaging applications. The DT3120 enables the acquisition of a standard monochrome, composite color, or S-video color image from a single camera.

Data Translation Quality in a Low-Cost Frame Grabber

Since 1984, when Data Translation introduced the industry's first single-board frame grabber, the company has led the way in the development of high quality, reasonably priced frame grabbers.

Extensive Software Support

The included Imaging Omni CD provides the tools you need to set up your Data Translation PCI frame grabber and develop imaging applications.

The Imaging Omni CD includes:

- DT-Acquire – Use this ready-to-run software application to verify the operation of your Data Translation frame grabber during startup, and to capture, display and save images.



The DT3120 low-cost frame grabber is an ideal solution for scientists, lab technicians, researchers, or anyone performing scientific and general-purpose imaging applications.

- Frame Grabber SDK – This allows Microsoft C programmers to develop your own application software in Windows 2000/XP.
- Device Driver – You must install this device driver to use your Data Translation frame grabber with any of the supported software packages or utilities. The device driver is for use with Windows 2000/XP.
- DT Vision Foundry Evaluation – DT Vision Foundry is a versatile and extensible machine vision software package that integrates powerful vision tools with multiple programming environments to provide a robust, flexible, easy-to-use visual inspection package. DT Vision Foundry is supported under Windows 2000/XP. The Imaging Omni CD lets you evaluate the great new features of DT Vision Foundry for 14 days.
- GLOBAL LAB Image/2 Evaluation – GLI/2 is a complete image analysis software package, ideal for scientific and general-purpose applications that require measuring, classification, counting, and other analysis. GLI/2 is supported under Windows 2000/XP. The Imaging Omni CD lets you evaluate the great new features of GLI/2 for 14 days.
- Documentation – User and Getting Started Manuals in PDF format.

System CPU Free for Image Processing

Because of their PCI Bus Master design and intelligent Scatter/Gather memory-management architecture, the DT3130 Series boards handle large amounts of image data quickly and effectively, and with no CPU intervention. This leaves the host CPU free to do other tasks such as image processing, data manipulation, or other processor-intensive operations.

DT3120

BUS: PCI

Type: Low-Cost Monochrome/Composite Color

System Requirements

- Pentium-III class processor
- 32-bit/33MHz PCI bus and supporting BIOS
- At least one available PCI Bus slot
- Microsoft Windows 2000/XP

Ordering Summary

All Data Translation hardware products are covered by a 1-year warranty. For pricing information see a current price list, visit our web site, or call your local reseller.

The DT3120 frame grabber is shipped with the Imaging Omni CD, a valuable software bundle which includes evaluations of DT Vision Foundry and GLOBAL LAB Image/2, WDM device drivers, complete documentation, a software development kit, and a ready-to-run software application.

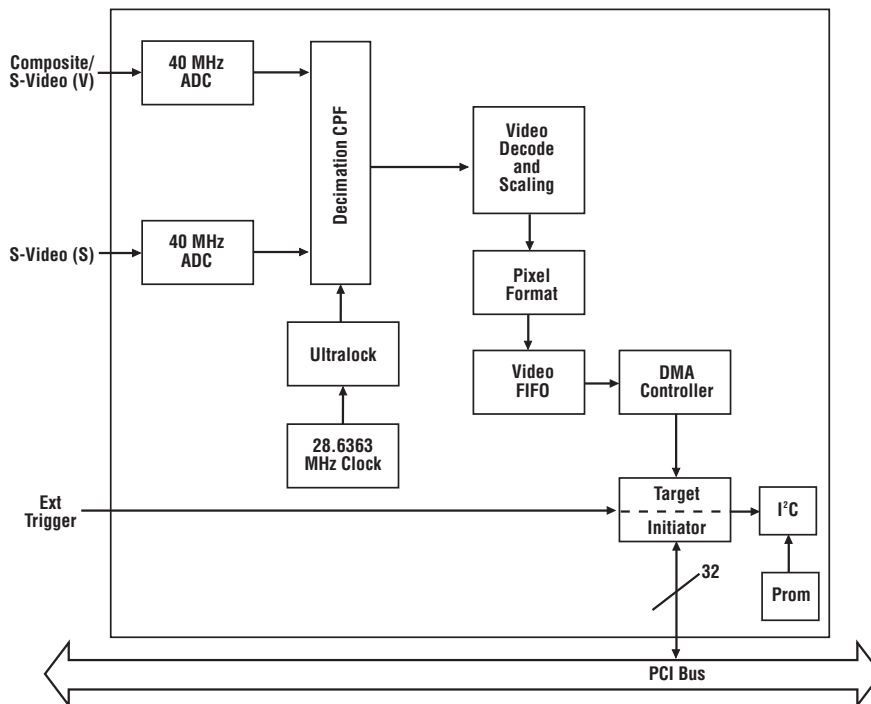
- DT3120 — Low Cost Monochrome/Composite Color Frame Grabber for the PCI bus.
- EP261 — 2.0M (6 ft.) composite video cable, BNC connections
- EP263 — 2.0M (6 ft.) S-video cable

Software

All software packages include a copy of the software on CD-ROM, and 90 days of complimentary telephone support.

- DT Vision Foundry Machine Vision Software
SP1400-CD Development
SP1402-CD Run-Time
- GLOBAL LAB Image/2 Image Analysis Software
SP1500-CD
- DT-Active Open Layers ActiveX Control
SP0974-CD

© Copyright 2005 Data Translation, Inc. All rights reserved.
All trademarks are the property of their respective holders.
Prices, availability, and specifications subject to change without notice.



DT3120 Block Diagram

DT3120 Specifications



Video Input

Video Format: Composite video and S-video (Y/C) formats; RS-170, RS-330, and NTSC (60 Hz) or CCIR and PAL (50 Hz); interlaced; software selectable.

Timing Format: Standard 60Hz and 50Hz timing formats are supported; software selectable.

Inputs:

1 active input, composite or S-video, AC coupled

Video Signal: 1 volt peak to peak, 75 ohms

Spatial Resolution: 640 x 480 (60 Hz);
768 x 576 (50 Hz)

Acquisition

Digitization: Twin 8-bit A/Ds, one for monochrome, and one for chroma; data derived to YCrCb format.

Pixel Jitter: ±6 nsec maximum

Aspect Ratio: 1:1 Square pixels

Frame Grab Speed: 1/30 s (60 Hz); 1/25 s (50 Hz)

Modes: Interlaced (start on next even, next odd, or next field), single frame or continuous operation; all software selectable.

Data Formats

Image data can be output in 32, 24, and 16-bit RGB, standard YUV, and 8-bit monochrome formats.

Control Signals

External trigger inputs: 1 TTL level, nonqualified.

Video Display

Uses PC's graphics card and monitor for display. Real-time video display and non-destructive, real-time animated overlays performed using Microsoft Direct Show.

Video Transfer Rate

55MB/s typical, 132 MB/s maximum.

Board operates as a Bus Master using Burst Mode for data transfer to host memory. Intelligent Scatter/Gather architecture used for image data management in host memory.

Power Requirements

+5 V@ 1 A typical

Physical and Environmental

Form: Half-size PCI bus card (short card)

Dimensions: 10.7 cm x 17.5 cm
(4.2 in x 6.875 in)

Weight: 150 g (5.3 oz)

Operating Temperature: 0° to 50° C
(32° to 122° F)

Storage Temperature: -25° to 70° C
(-13° to 158° F)

Relative Humidity: Up to 90%,
non-condensing

Warranty

One year limited parts and labor.

Backplate

