

P i x e L I N K

Megapixel FireWire Cameras

PL-A661 – MONOCHROME

PL-A662 – COLOR

Highlights

PixeLINK™ PL-A661 and PL-A662 Cameras offer high-resolution megapixel capability with the convenience of FireWire (IEEE 1394) to capture low latency video streams and digital still images. Available in a Camera Kit for operation "out of the box," and a Developer's Kit that includes all of the software and hardware necessary for customized application development. The PL-A661 and PL-A662 are encased in a rugged yet lightweight magnesium housing.



Features

- All-in-one megapixel FireWire C-mount cameras
- Stream uncompressed video or capture still images
- FireWire digital interface simplifies installation and eliminates the need for framegrabbers
- Flexible and full-featured CMOS image sensor with high resolution 1.3 megapixel array (1280 × 1024 pixels)
- Up to 12.7 fps at 1280 × 1024 resolution, 60 fps at 640 × 480
- FireWire cable carries video data, control signals and power—no additional cables required.
- Application Programming Interface (Developer's Kit only)
- Includes application (*PixeLINK Capture*), providing controls for:
 - Gamma correction, signal gain, exposure time
 - Imager subwindow size and position
 - Image flip and mirror
 - Choice of 8-bit or 10-bit data and data rate
- Supports 3rd party software applications via industry standard interface protocols:
 - DirectShow®
 - TWAIN™

Suggested Applications

- Microscopy
- Medical and biometric imaging
- Video conferencing systems
- Surveillance and security cameras
- Webcasting systems
- Photo ID systems



General Description

The PL-A661 and PL-A662 Cameras use the FireWire (IEEE 1394) digital bus protocol to streamline the capture, digitization and processing of megapixel video streams. These Cameras are designed to simplify real-time uncompressed video streaming and digital still image acquisition while maintaining uncompromising video and digital still-image quality.

One FireWire cable can manage power distribution, PC-based control and real-time video streaming capabilities of the Camera.

The Developer's Kit offers an extensive Application Program Interface (API). This API is designed to simplify the most common tasks associated with configuring and controlling the Camera. Software developers can easily adapt existing programs or develop new imaging applications quickly.

The PL-A661 and PL-A662 are compatible with Windows® 98 SE, Windows® 2000 and Windows® XP.

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Configurations

Camera Kit (PL-A661-KIT, PL-A662-KIT)

- PL-A661 or PL-A662 Megapixel FireWire Camera (no lens provided)
- FireWire adapter card
- FireWire cable
- Quick Start installation card
- Camera Kit software
 - Windows® 98 SE, 2000 and XP Drivers
 - TWAIN interface
 - Application: *Pixeline Capture*
- Online User's Manual
- Warranty card

Developer's Kit (PL-A661-DEV, PL-A662-DEV)

- All elements from the Camera Kit, plus:
- All necessary software and documentation to create custom applications
 - Extensive API
 - Source code examples of applications (upon request)
 - Access to technical support
 - ¼–20 Mount

Accessories

A wide variety of accessories are available with these cameras including cables, adapter cards, FireWire repeaters, lenses, tripods and mounts. Contact your Authorized PixelINK Reseller for details.

Specifications

Imaging Chip

Type..... 1/2" Kodak KAC-1310 1.3 megapixel CMOS
 Resolution..... 1280 × 1024 active pixels
 Pixel Size 6.0 µm × 6.0 µm, square
 Array Dimensions 7.68 mm × 6.14 mm
 Frame Rate, in frames per second (fps), 8-bit pixels

| | @ 16 MHz | @ 24 MHz (Dev Kits only) |
|-------------|----------|-----------------------------|
| 32 × 32 | | >2500 |
| 320 × 240 | 176 | 246 |
| 640 × 480 | 48 | 60 |
| 800 × 600 | 31 | 42 |
| 1024 × 768 | 20 | 23 |
| 1280 × 1024 | 11.4 | 12.7 |

Color Mosaic RGB Bayer with standard microlenses (PL-A662)
 Shutter Continuous and single frame rolling shutter capture
 Gamma Software programmable
 Optical Fill-Factor..... 40% mono / 64% color
 Saturation Signal 40,000 electrons
 Quantum Efficiency .. 38% peak RGB
 Responsivity..... 0.6 V/Lux-sec peak RGB
 Total Dark Noise 70 e- rms
 Dark Current 6250 e-/pixel/sec
 Dark Current Doubling Temperature 9°C
 Dynamic Range..... >54dB

Electrical

Voltage..... 8 V–30 V DC
 Power 3 W typ. (250 mA at 12 V, supplied by FireWire cable)

Physical

Operating Temp. +5°C to +60°C
 Lens mount..... C-mount lens adapter
 Weight..... 175 g (without lens)
 Compliance FCC Class B; CE
 Camera Housing Magnesium

Interface

Operating System..... Windows® 98 SE, 2000 and XP
 Data Format 8-bit or 10-bit, uncompressed
 Interface Type 2, 6-pin FireWire ports (400 Mbits/s)
 Max. Data Rate 24 Mbytes per second

System Requirements

- Microprocessor:
 Minimum—450 MHz Pentium® III or equivalent
 Recommended—1.5 GHz Pentium® 4 or equivalent
- 128 MB system RAM
- 25 MB hard drive free space
- Video card with 24 or 32 bit True Color graphics
- 8 MB of video memory

To Order Your PixelINK Camera

Contact

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