

**PixeLINK offers a line of FireWire digital cameras and software to support high-performance Machine Vision applications.**

- FireWire Interface
- Color/Monochrome
- Global and Rolling Shutter
- 40-48 MHz Pixel Clocks
- 1.3 to 6.6 Megapixel
- General Purpose Outputs
- External Trigger
- On-Board Flat Field Correction
- Excellent Anti-Blooming
- ROI Sub-Windowing
- Software Developer's Kit
- Direct Show Compatible
- OEM Private Labeling
- Powerful, Easy to Use and Cost Effective
- Generic Commands for all Camera Models
- Capture and save still images and AVI video clips
- Fast and flexible access to streaming video



## **PixeLINK Software Developer's Kit**

### **Providing full control of all camera functions**

The PixeLINK SDK contains a full Application Programming Interface, a sample application with source code, LabVIEW wrappers and documentation. The SDK is compatible with Visual Basic and Visual C++ on Windows™ 2000 and XP platforms.

With the SDK, developers can integrate PixeLINK cameras into their custom applications with ease. A small set of API functions can be used to determine and control the camera feature set required for your application. Integration is fast and simple.

The SDK includes *PixeLINK Capture OEM*, a free sample application that controls all the camera functions and demonstrates camera performance. *PixeLINK Capture OEM* provides integrators with examples of how a PixeLINK camera can be integrated into a complex application. An API function call log displays the sequence of API calls used and their parameter values any time a control on the GUI is accessed.

*PixeLINK Capture OEM* also acts as a camera configuration utility and provides access to all camera features that are not available with standard interfaces such as Direct Show.

PixeLINK offers full technical support with the purchase of the SDK. The support includes access to our advanced support area on the PixeLINK website, free software upgrades as well as assistance from our experienced support team.

## **FireWire Digital Imaging Solutions for Machine Vision**

PL-B700F series are high-performance megapixel color and monochrome cameras designed for machine vision and industrial inspection applications. The cameras are complemented by on-board look-up tables, multiple triggering modes, flexible ROI sub-windowing and excellent anti-blooming. Real-time flat-field correction provides image quality similar to high-end CCD cameras.

For OEM and end-users who require increased flexibility, PixeLINK offers all of its cameras with both standard and right-angle mechanical configurations.

Contact us or your PixeLINK Representative directly to determine which configuration best suits your application.

### **For more information, contact:**

**PixeLINK**  
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<http://www.pixelink.com>

|                |          |          |          |          |          |          |          |
|----------------|----------|----------|----------|----------|----------|----------|----------|
| Camera Model > | PL-B741F | PL-B742F | PL-B771F | PL-B774F | PL-B776F | PL-B781F | PL-B782F |
|----------------|----------|----------|----------|----------|----------|----------|----------|

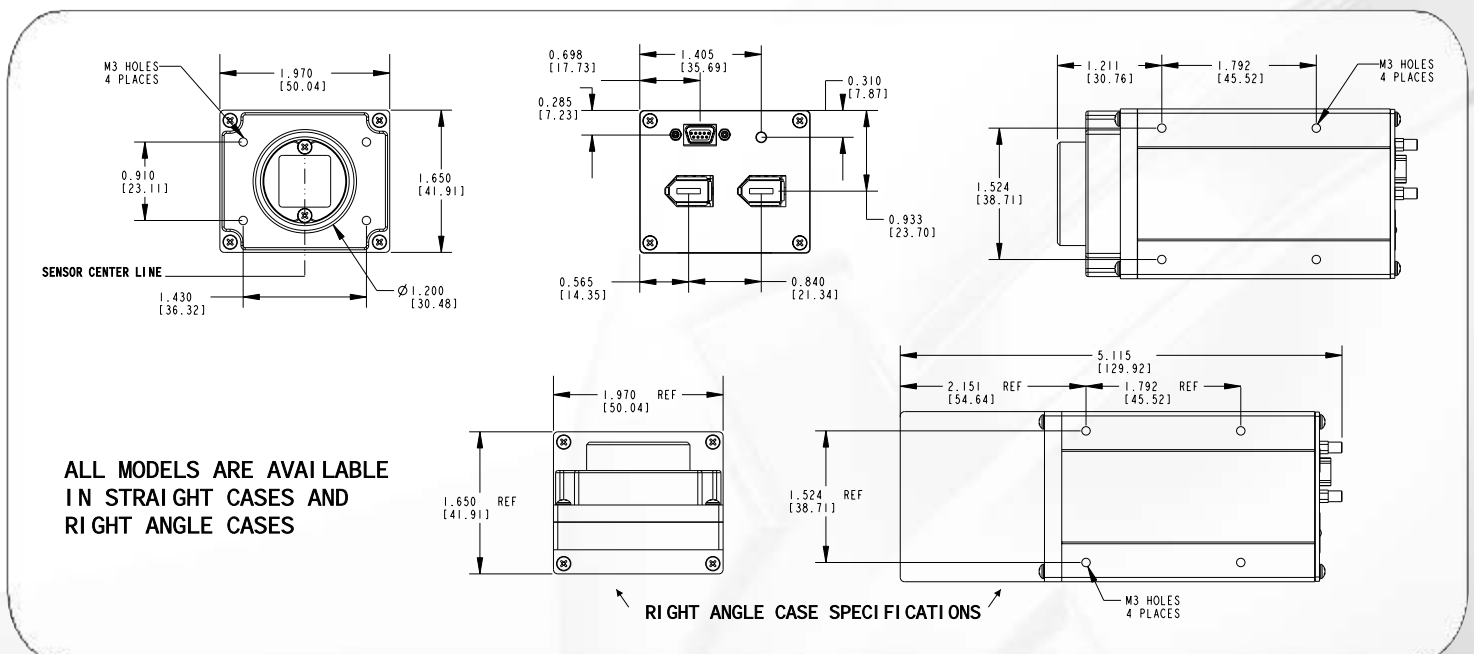
| Camera Specifications         |             |             |                 |                 |                 |                |                |
|-------------------------------|-------------|-------------|-----------------|-----------------|-----------------|----------------|----------------|
| Color / Mono                  | Mono        | Color       | Mono            | Color           | Color           | Mono           | Color          |
| Resolution                    | 1280 x 1024 | 1280 x 1024 | 1280 x 1024     | 1600 x 1200     | 2048 x 1536     | 2208 x 3000    | 2208 x 3000    |
| Frame Rate at Full Resolution | 27          | 27          | 30 <sup>†</sup> | 20 <sup>†</sup> | 12 <sup>†</sup> | 5 <sup>†</sup> | 5 <sup>†</sup> |
| Sensor Type                   | CMOS        | CMOS        | CMOS            | CMOS            | CMOS            | CMOS           | CMOS           |
| Shutter Type                  | Global      | Global      | Rolling         | Rolling         | Rolling         | Rolling        | Rolling        |
| Lens Format                   | C 2/3"      | C 2/3"      | C 1/2"          | C 1/2"          | C 1/2"          | C 1"           | C 1"           |
| Pixel Pitch                   | 6.7 μm      | 6.7 μm      | 5.2 μm          | 4.2 μm          | 3.2 μm          | 3.5 μm         | 3.5 μm         |
| Sensor Diagonal               | 11.01 mm    | 11.01 mm    | 8.52 mm         | 8.40 mm         | 8.19 mm         | 13.1 mm        | 13.1 mm        |
| Bit Depth                     | 8 or 10     | 8 or 10     | 8 or 10         | 8 or 10         | 8 or 10         | 8 or 10        | 8 or 10        |
| Power Consumption (Watts)     | 2.9W        | 2.9W        | 3.2W            | 3.2W            | 3.2W            | 3.7W           | 3.7W           |
| Variable ROI                  | Yes         | Yes         | Yes             | Yes             | Yes             | Yes            | Yes            |
| Right-angle Capable           | Yes         | Yes         | Yes             | Yes             | Yes             | Yes            | Yes            |
| Interface (FireWire)          | 6 pins x 2  | 6 pins x 2  | 6 pins x 2      | 6 pins x 2      | 6 pins x 2      | 6 pins x 2     | 6 pins x 2     |

<sup>†</sup> Non-triggered frame rates. Triggered frame rates will be slower

| Camera Features via FireWire |                                                                         |
|------------------------------|-------------------------------------------------------------------------|
| Trigger Options              | Hardware - Optically Isolated 5-12V @ 4-11mA, Software and Free Running |
| General Purpose Outputs      | 2 Optically Isolated - Maximum 40V Differential. Maximum 15mA           |

| Image Quality Measures | (See the Knowledge Base at <a href="http://www.pixelink.com">http://www.pixelink.com</a> for a description of Image Quality Measures) |                             |                              |                             |                             |                             |                             |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Responsivity (Peak)    | 9.4DN/(nJ/cm <sup>2</sup> )                                                                                                           | 7.3DN/(nJ/cm <sup>2</sup> ) | 11.8DN/(nJ/cm <sup>2</sup> ) | 2.7DN/(nJ/cm <sup>2</sup> ) | 1.8DN/(nJ/cm <sup>2</sup> ) | 6.7DN/(nJ/cm <sup>2</sup> ) | 7.5DN/(nJ/cm <sup>2</sup> ) |
| Dynamic Range          | 54.6 dB                                                                                                                               | 54.6 dB                     | 60 dB                        | 60 dB                       | 60 dB                       | 60 dB                       | 60 dB                       |
| FPN                    | < 1%                                                                                                                                  | < 1%                        | < 1%                         | < 1%                        | < 1%                        | < 1%                        | < 1.5%                      |
| PRNU                   | < 1%                                                                                                                                  | < 1.5%                      | < 1%                         | < 1%                        | < 1%                        | < 2%                        | < 3%                        |
| Read Noise             | < 2 DN                                                                                                                                | < 2 DN                      | < 1 DN                       | < 1 DN                      | < 1 DN                      | < 1 DN                      | < 1 DN                      |

| Software                     |                                              |          |          |          |          |          |          |
|------------------------------|----------------------------------------------|----------|----------|----------|----------|----------|----------|
| PixeLINK Capture OEM         | Free                                         | Free     | Free     | Free     | Free     | Free     | Free     |
| SDK (incl. LabView Wrappers) | Optional                                     | Optional | Optional | Optional | Optional | Optional | Optional |
| Direct Show Compatible       | Yes                                          | Yes      | Yes      | Yes      | Yes      | Yes      | Yes      |
| Windows Compatible           | 2000/XP                                      | 2000/XP  | 2000/XP  | 2000/XP  | 2000/XP  | 2000/XP  | 2000/XP  |
| IIDC DCAM Compatible         | (Version 1.31) Including Format 7 Extensions |          |          |          |          |          |          |



ALL MODELS ARE AVAIL ABLE  
IN STRAIGHT CASES AND  
RIGHT ANGLE CASES