

## CMOS FireWire Cameras and software for high-performance Machine Vision applications.

### 1.3 - 6.6 Mega Pixel

- larger field of view, smaller defect detection and improved precision

### FireWire Interface

- deterministic communication for precisely timed applications
- eliminates frame grabber and simplifies cabling

### User Defined Region of Interest (ROI)

- image localized regions for up to 8000fps and smaller data files

### Common Software Developer's Kit (SDK)

- quick exchanges between FireWire, USB 2.0 and GigE cameras
- includes sample source code and wrappers for National Instruments LabVIEW

### In-Camera Flat Field Correction

- enhances image quality through correction of FPN, PRNU and illumination non-uniformities



## 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, XP and Vista (32-bit) 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 not available with standard interfaces such as DirectShow.

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 [sales@pixelink.com](mailto:sales@pixelink.com)**

### PixelINK

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<http://www.pixelink.com>

Camera Model >	PL-B771F	PL-B774F	PL-B776F	PL-B777F	PL-B778F	PL-B781F	PL-B782F
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Camera Specifications							
Color / Mono	Mono	Color	Color	Mono	Color	Mono	Color
Resolution	1280 x 1024	1600 x 1200	2048 x 1536	2592 x 1944	2592 x 1944	2208 x 3000	2208 x 3000
Frame Rate at Full Resolution	30	20	12	7	7	5	5
Sensor Type	CMOS	CMOS	CMOS	CMOS	CMOS	CMOS	CMOS
Shutter Type	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling
Lens Format	C 1/2"	C 1/2"	C 1/2"	C 1/2.5"	C 1/2.5"	C 1"	C 1"
Pixel Pitch	5.2 µm	4.2 µm	3.2 µm	2.2 µm	2.2 µm	3.5 µm	3.5 µm
Sensor Diagonal	8.52 mm	8.40 mm	8.19 mm	7.13 mm	7.13 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)	3.4W	3.7W	3.8W	TBD	TBD	3.6W	4.6W
Variable ROI	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Right-angle Capable	All camera models are available with right angled case by adding suffix -R to part number						
Interface (FireWire)	2 x 6 PIN Connectors (with the option to daisy chain multiple cameras)						

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)						
Peak Responsivity (DN/(nJ/cm <sup>2</sup> ))	11.8	10	4.6	TBD	TBD	4.4	4
Dynamic Range	60 dB	60 dB	60 dB	TBD	TBD	60 dB	60 dB
FPN	< 1%	< 1%	< 1%	TBD	TBD	< 1%	< 1.5%
PRNU	< 1%	< 1%	< 1%	TBD	TBD	< 2%	< 3%
Read Noise	< 1 DN	< 1 DN	< 1 DN	TBD	TBD	< 1 DN	< 1 DN

Software							
PixeLINK Capture OEM	Free Download at <a href="http://www.pixelink.com">http://www.pixelink.com</a>						
SDK (incl. LabView Wrappers)	Optional	Optional	Optional	Optional	Optional	Optional	Optional
DirectShow Compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Windows Compatible	Windows™ 2000, XP and Vista (32-bit)						
IIDC DCAM Compatible	(Version 1.31) Including Format 7 Extensions						

