

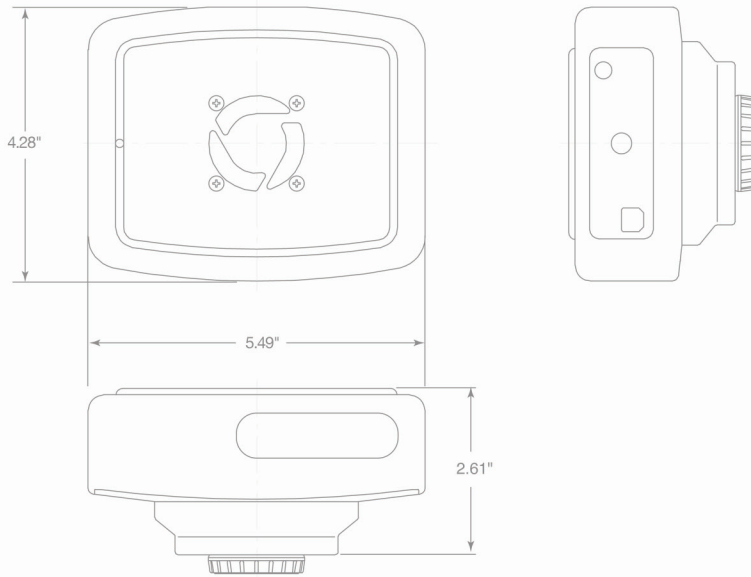
The SPOT™ Pursuit Monochrome digital camera offers superior quantum efficiency and high speed, optimizing sensitivity for low light scientific applications. This value-priced camera provides 14-bit digitization with multiple readout speeds for recording dynamic events. Binning, gain and ROI adjustments are supported to maximize speed, and Peltier cooling minimizes thermal noise. The primary applications for this camera include live cell GFP imaging, ion tracking, high content screening, immunofluorescence and 3D deconvolution.

The SPOT Pursuit includes SPOT Basic software (Windows® and Mac® OS) for real-time image preview and acquisition. Drivers are available for many third-party imaging software applications, and advanced triggering enables precise synchronization with peripherals. USB 2.0 connectivity affords effortless installation on computers and portable laptops. The SPOT Pursuit camera's robust design, compact size, and well-documented, free Software Development Kit (SDK) provide easy OEM integration.



# Pursuit™ USB

1.4 Mp  
MONOCHROME



## Features

## Benefits

>10 fps Image Capture	High speed, high resolution image capture
8 e <sup>-</sup> Read Noise	Excellent low light detection limit and SNR
USB 2.0	Plug and play cable connection, no frame grabber card needed
-25° C Cooling	Suppresses dark current noise
Mac® and Windows® OS	Choose your OS environment

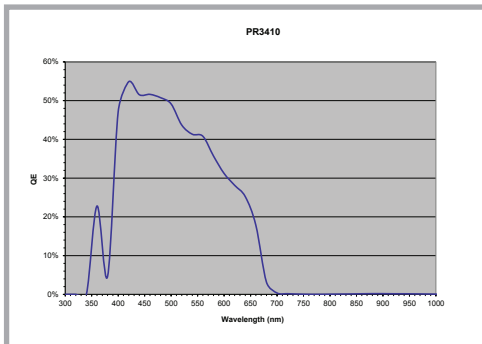


**SPOT Imaging Solutions™**  
A division of Diagnostic Instruments, Inc.

## Specifications

Resolution	1.4 Mp
Sensor Type	Sony ICX285AK CCD color mosaic
Shutter	Global electronic
Active Pixels	1360 x 1024
Pixel Size	6.45 µm x 6.45 µm
Optical Format	2/3"
Active Imager Size	8.77mm (H) x 6.60mm (V) 10.97mm diagonal
Exposure Time	0.5ms – 1500sec
Anti-Blooming	100x minimum
Binning	2 x 2, 3 x 3, 4 x 4, 8 x 8
Region of Interest	User selectable, 50 x 50 to full resolution
Read Noise	8 e- RMS typical
Dark current	0.045 e/p/s
Full Well Depth	>16,000 e- (no binning) >24,600 e- (with binning)
Non-linearity	<1%
A-D Converter	14-Bit @ 20 MHz DCS
Saving Bit Depth	8, 12 or 16 bits/channel (24, 36 or 48 bit color)
Analog Gain	0.65, 1
Cooling	-25° C differential from ambient via computer controlled fan cooled thermoelectric cooler with hermetically sealed, fan cooled heat sink
Lens Mount	C-mount
Computer Interface	USB 2.0
Triggers	Camera ready output (TTL) External trigger input (TTL) Exposure sync output (TTL)
Tripod Mount	1/4"-20 (sold separately)
Weight	2.4 lbs (1.09 kg)
Size	5.5" W x 4.3" D x 2.7" H (139mm x 109mm x 68mm)
Power Requirements	100-240 VAC 1A
Operating Environment	0 to 50°C, 95% relative humidity (non-condensing)
Storage Temperature	-20 to 60°C
Certifications	CE, FCC Class A, EN60950, RoHS

## Quantum Efficiency



## Captured Frame Rates Captured Frames per Second \*

Binning level	Region of interest				
	1360x1024	640x480	512x512	256x256	50x50
None	10.9	21.5	20.5	36.2	92.4
2 x 2	20.1	37.3	35.9	58.3	114.0
3 x 3	28.0	49.4	48.2	73.8	124.6
4 x 4	34.8	59.2	57.7	84.6	130.0
8 x 8	55.3	83.6	83.2	108.7	138.8

\*1ms exposure with post-processing deferred, taken with 2.6 Ghz Xeon processor running Windows XP. Capture rates on other computers OS platforms may vary.

## SPOT Software

SPOT Basic Software Features	<ul style="list-style-type: none"> <li>Live mode viewing window with controls</li> <li>Image capture window</li> <li>Image capture setups are user defined, named and saved</li> <li>Auto or manual exposure for Live and captured images</li> <li>Auto white balance</li> <li>Spot or average metering</li> <li>Flatfield correction</li> <li>Annotation</li> <li>Calibration mark</li> <li>Measurement tools</li> <li>Image enhancement tools</li> <li>Sequential image capture and playback</li> <li>Report generator</li> <li>Interactive print dialog</li> <li>Help menu</li> <li>3rd Party Software Interface: Standard Twain for Windows®, SPOT Image Capture Application &amp; Apple Event for Mac®</li> </ul>
Computer Operating System Compatibility	<ul style="list-style-type: none"> <li>Windows®: XP SP3 (32-bit), Vista (32 or 64-bit), 7 (32 or 64-bit) and 8 (32 or 64-bit)</li> <li>Mac®: OS 10.6 - 10.8</li> </ul>
Minimum Computer Requirements	<ul style="list-style-type: none"> <li>PC: 1GHz Pentium 4 (or equivalent x86 SSE2 processor), 1 GB RAM, USB 2.0 port</li> <li>Mac®: Intel processor, 1 GB RAM, USB 2.0 port</li> <li>Mac® and PC video: 24-bit color @ 1024 x 768 resolution</li> </ul>
SPOT Advanced Software	Available (includes macro feature, floating taskbars, custom dialogs and image archiving database)
SPOT Advanced Software Modules (Optional)	Available (adds image display intensity scaling, peripheral device control, extended depth of focus and extended third party interface)
Software Development Kit	Available for Mac® and Windows®
Native Drivers for 3rd Party Software	Available (call or visit our website)

## Items Included

Camera Head	With lens cap
USB2 Cable	Carries data
Power Supply	With power cord, 5.91" (150mm) x 2.76" (70mm) x 1.38" (35mm), 1.36 lbs. (600g)
Quick Start Installation Guide	Instructions on how to get up and running quickly
Software CD	Includes SPOT Basic software and User Guide
Warranty	2 years from date of purchase

## Catalog Number

C-Mount

F-Mount

Pursuit 1.4 Mp USB Mono w/IR	PR3410	NA
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Specifications are typical and subject to change.



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Data Sheet: Pursuit 1.4 USB Mono w/IR Filter