

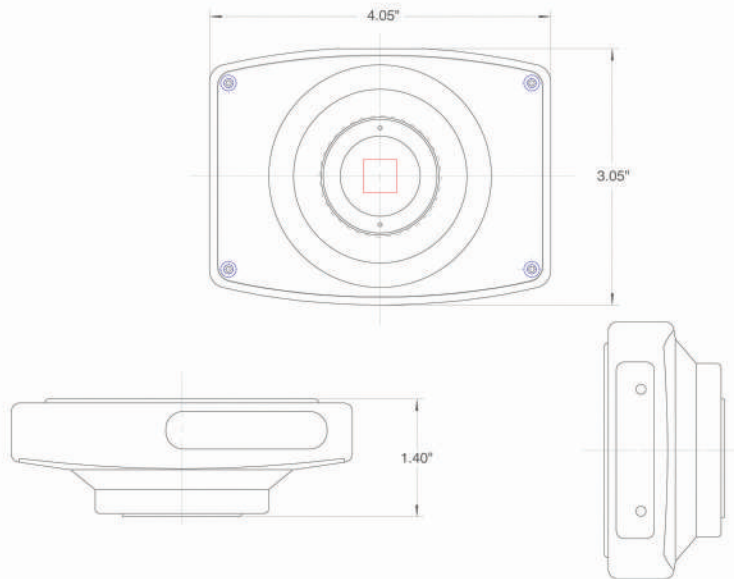
The SPOT™ Idea camera delivers 12-bit high quality images for the serious microscopist at a low price. The SPOT Idea produces 5.0 megapixel resolution in vivid colors, enhancing publications, documentation and archiving. The SPOT Idea is an excellent choice for pathology, as well as clinical, life and material science, measurement, educational, and industrial applications.

The SPOT Idea includes SPOT Basic software (Windows® and Mac® OS) which features real time image previewing, scale bar addition, report generation, time lapse, and measuring capabilities. Its USB 2.0 interface enables “plug-and-play” installation, and trigger options provide precise synchronization with peripherals. SPOT Idea cameras come with a 2-year warranty and are supported by an experienced team of imaging specialists.



# idea™

CMOS | 5.0 Mp

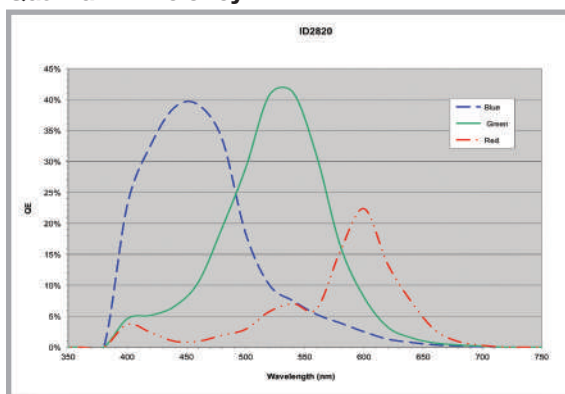


| Features                         | Benefits   |
|----------------------------------|--|
| 5.0 Mp Images                    | Resolves fine image detail   |
| Real time Live mode              | Frame and focus in real time<br>76 fps at 640 x 480 ROI at full resolution<br>28 fps, full frame at 1/4 resolution<br>7 fps, full frame at 1/2 resolution      |
| Auto and Manual exposure control | Let the software compute the exposure time and gain or set them yourself   |
| USB 2.0                          | Single cable connection provides effortless installation, reduces cable clutter and enhances laptop portability (no power supply or frame grabber card needed) |
| SPOT Basic Imaging Software      | Provides essential tools for modern microscopy   |
| Mac® and PC                      | Compatible with both Mac® and Windows® computers   |

| Sensor                   |  |
|--------------------------|--|
| Resolution               | 5.0 Mp   |
| Sensor Type              | CMOS, color mosaic, Bayer pattern                    |
| Shutter                  | Rolling shutter with single frame capture            |
| Active Pixels            | 2592 x 1944  |
| Pixel Size               | 2.2µm x 2.2µm  |
| Optical Format           | 1/2.5" (4:3)   |
| Active Imager Size       | 5.70mm (H) x 4.28mm (V)<br>7.13mm diagonal           |
| Exposure Time            | 44µs – 15sec   |
| Variable Resolution      | User selectable                                      |
| Region of Interest       | User selectable                                      |
| Read Noise               | 6.5 e <sup>-</sup> rms                               |
| Full Well Depth          | 7,600 e <sup>-</sup>                                 |
| Non-linearity            | <1%  |
| Bit Depth                | 8, 10 or 12 bits/channel<br>(24, 30 or 36 bit color) |
| Sensor Readout Frequency | 72MHz (into camera frame buffer)                     |
| Analog Gain              | 1, 2, 4 and 8  |

| Camera                |  |
|-----------------------|--|
| Lens Mount            | C-mount  |
| Computer Interface    | USB 2.0  |
| Trigger Connectors    | Sync output (TTL)<br>External trigger input (TTL)    |
| Tripod Mount          | 1/4"-20, stainless steel threads                     |
| Weight                | 1.31 lbs (295g)                                      |
| Size                  | 4.05" W x 3.05" D x 1.40" H<br>(103mm x 77mm x 36mm) |
| Power Consumption     | 2W from USB cable                                    |
| 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 \*

| Live Mode (frames per second)                |           |          |         |         |       |
|--|-----------|----------|---------|---------|-------|
| Region of Interest                           | 2592x1944 | 1296x972 | 640x480 | 256x256 | 50x50 |
| 1/2 Res                                      | 7         | 28       | 76      | 149     | 180   |
| 1/4 Res                                      | 28        | 78       | 157     | 190     | 191   |
| 1/8 Res                                      | 56        | 112      | 137     | 137     | 138   |
| Sequential Image Capture (frames per second) |           |          |         |         |       |
| Full Res                                     | 4         | 16       | 63      | 151     | 180   |
| 1/2 Res                                      | 16        | 62       | 159     | 191     | 194   |
| 1/4 Res                                      | 56        | 113      | 137     | 138     | 138   |

\* Frame rates measured with 44µs exposure time on 2GHz Intel Dual Core Xenon processor running Windows XP. Post-processing was deferred on sequential images. Frame rates may vary on other processors and operating systems.

| SPOT Software                             |   |
|---|---|
| SPOT Basic Software Features              | Color Live mode viewing window with controls<br>Image capture window<br>Image capture setups are user defined, named and saved<br>Auto or manual exposure for Live and captured images<br>Zoom control on Live and captured images<br>Auto white balance<br>Spot or average metering<br>Correct Color Technology™ using ICC/ColorSync corrections<br>Flatfield correction<br>Annotation<br>Calibration mark<br>Measurement tools<br>Image enhancement tools<br>Sequential image capture and playback<br>Report generator<br>Interactive print dialog<br>Help menu<br>3rd Party Software Interface: Twain for Windows®, SPOT Image Capture Application & AppleEvent for Mac® |
| Computer Operating System Compatibility   | Windows: 7 (32 or 64-bit), 8 (32 or 64-bit) and 10 (32 or 64-bit)<br>Mac: OSX 10.8-10.11, macOS 10.12   |
| Minimum Computer Requirements             | PC: 1GHz Pentium 4 (or equivalent x86 SSE2 processor), 1 GB RAM, USB 2.0 port<br>Mac®: Intel processor, 1 GB RAM, USB 2.0 port<br>Mac® and PC video: 24-bit color @ 1024 x 768 resolution   |
| SPOT Advanced Software                    | Available (includes macro feature, floating taskbars and image archiving database)  |
| SPOT Advanced Software Modules (Optional) | Available (adds image display intensity scaling, peripheral device control and extended depth of focus)   |
| 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 both data and power   |
| 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   |
| <b>Catalog Number</b>                     | <b>Idea 5.0 Mp</b>   ID2820   |

Specifications are typical and subject to change.

