



# INSIGHT™ sCMOS Cameras

5MP 12MP  
Models Available

Take a closer look.

## FAST, FLUID

LIVE-IMAGE FRAME RATE, EVEN ON DIM IMAGES

## AUTO EXPOSURE

OUR BEST-EVER

USB 3.0  
INTERFACE



## GLOBAL SHUTTER

FOR DISTORTION-FREE IMAGES,  
EVEN ON MOVING SPECIMENS

## ACCURATE COLOR!

SPOT SOFTWARE TRANSFORMS RAW  
SENSOR COLORS INTO GLORIOUS  
REALITY

# If you loved your SPOT before... wait 'til you see us now!

## The new SPOT INSIGHT sCMOS Cameras

**Breakthrough Sony Pregius™ sCMOS technology  
and performance at a super-affordable price.**

Now you can experience unprecedented speed and sensitivity in a CMOS camera.

A global shutter insures undistorted images of moving specimens.

The Insight sCMOS is optimal for pathology, cytology, microbiology,  
industrial inspection, supporting both brightfield and fluorescence microscopy.

All SPOT cameras are compatible with:



Windows™



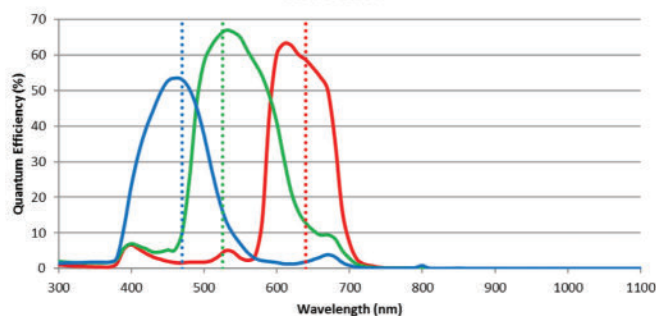
Take a closer look

# SPOT Insight sCMOS cameras with the Sony Pregius™ Sensor

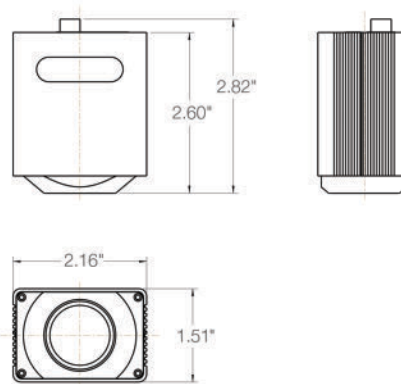
Sensor Specs		
Model	IN41C5IR	IN42C12IR
Sensor Type	Color Mosaic	Color Mosaic
Captured Image Resolution	5.1 MP	12.3 MP
Live Image Resolution, No Decimation	1.3 MP	3.1 MP
Live Image Frame Rate, No Decimation*	22 fps	11 fps
Live Image Resolution, 2x2 Decimation	0.32 MP	0.76 MP
Live Image Frame Rate, 2x2 Decimation*	66 fps	31 fps
Sensor	Sony Pregius™ CMOS, Back Illuminated	Sony Pregius™ CMOS, Back Illuminated
Sensor P/N	Sony IMX250	Sony IMX253
H x V, Pixels	2248 x 2048	4096 x 3000
H x V, mm	8.47mm x 7.07mm	14.13mm x 10.35mm
Pixel Size	3.45 μm	3.45 μm
Aspect Ratio	6:5	4:3
Sensor Diagonal	11.0mm	17.5mm
Optical Format	2/3"	1.1"
Standard Adapter Magnification	0.63x (17.4mm)	1.0x (17.5mm)
Widefield Adapter Magnification	0.55x (20.0mm)	N/A
Shutter Type	Global Shutter	Global Shutter
Peak QE, Color	66% at 525nm	66% at 525nm
Fixed Pattern Noise	None	None
Camera Specs		
Lens Mount	C-mount	C-mount
Computer Interface	USB 3.0	USB 3.0
Full Well	10,300 e	10,300 e
Read Noise	2.4 e	2.4 e
Dynamic Range	73 dB	73 dB
A-D Bit Depth	12-bit	12-bit
Analog Gain	1, 2, 4, 8, 16, 32, 64, 128, 251	1, 2, 4, 8, 16, 32, 64, 128, 251
Exposure Time Range	10μs to 3.9 sec	10μs to 3.9 sec
ROI	Yes	Yes
Exposure While Downloading	Yes	Yes
Trigger I/O (OEM models only)	Trigger In* Synch1 Out* I/O/TX, I/O/RX *(Optically isolated, requires external power supply)	Trigger In* Synch1 Out* I/O/TX, I/O/RX *(Optically isolated, requires external power supply)

Trigger I/O Connector	Hirose HR25-7TR-8A
Power Required	5V supplied via USB3 Interface
ON-OFF Switch	No
Tripod Mount	Optional
USB Connector	USB 3.0 Micro-B
Regulatory	CE, FCC Class A, RoHS
SPOT Software Application	Windows Mac
SDK Support	Windows Mac Linux

## Color Mosaic + IR Filter QE



## Dimensions



## The suggested applications for this camera include:

- |                           |                                |
|---------------------------|--------------------------------|
| Brightfield               | Histology, Pathology, Cytology |
| Darkfield                 | Semiconductor Inspection       |
| Bright Light Fluorescence | Metrology                      |
| Live Cell Imaging         | Whole Slide Imaging            |

\* Typical frame rate on a brightfield microscope with a computer using an Intel Core i5 CPU with 4 physical cores. CPUs with only 2 physical cores will be slower. SPOT Correct Color Technology was ON for this test.

Availability: Q4 2017



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SPOT INSIGHT sCMOS Camera Data Sheet PN12032 Rev. F 5MP | 12MP