Pyramid Imaging
945 East 11th Avenue Tampa, FL 33605
Phone: (813) 984-0125
Contact: Sales@ pyramidimaging.com
https://pyramidimaging.com

pco.panda 26

ultra compact global shutter
sCMOS camera

dust-protected
housing

available in
mono and color

65 mm

ultra
compact
design

high resolution
5120 x 5120 pixel

single cable solution
data & power supply via USB 3.1

true charge domain
global shutter

1288
EMVA Standard Compliant

pco.

technical specifications

pco.panda 26

» sCMOS image sensor

type of sensor	global shutter scientific CMOS (sCMOS) monochrome
resolution (h x v)	5120 x 5120 active pixel
pixel size (h x v)	2.5 µm x 2.5 µm
sensor format / diagonal	12.8 mm x 12.8 mm / 18.1 mm
shutter mode	global/snapshot shutter (GS)
MTF	200 lp/mm (theoretical)
fullwell capacity	4500 e^-
readout noise (typ.)[1]	2.3 $_{med}$ e^- / 2.5 $_{rms}$ e^-
dynamic range (typ.)	66 dB
quantum efficiency	65 %
spectral range	320 nm .. 1000 nm
dark current (typ.)	3 e^-/pixel/s @ 21 °C ambient temperature
DSNU	< 1 e^- rms
PRNU	< 1.2 %
anti blooming factor[2]	> 10 000
parasitic light sensitivity	1/10000

» camera system

maximum frame rate @ full resolution	6 fps
exposure / shutter time	27 µs .. 20 s
dynamic range A/D	12 bit
A/D conversion factor	1.1 e^-/DN
pixel data rate	187 Mpixel/s
binning horizontal	x1, x2, x4
binning vertical	x1, x2, x4
region of interest (ROI)	horizontal: steps of 8 pixel (min. 24) vertical: steps of 2 pixel (min. 8)
non linearity	< 0.6 %
cooling method	passive cooled
trigger input signals	frame trigger, sequence trigger, programmable input (SMA connectors)
trigger output signals	exposure, busy, programmable output (SMA connectors)
data interface	USB 3.1 Gen 1
time stamp	in image (1 µs resolution)

[1] The readout noise values are given as median (med) and root mean square (rms) values, due to the different noise models, which can be used for evaluation. All values are raw data without any filtering.

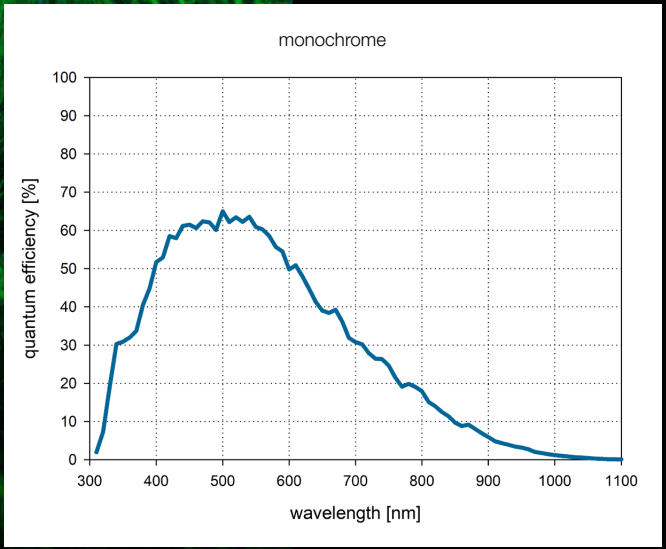
[2] Based on image sensor data sheet.

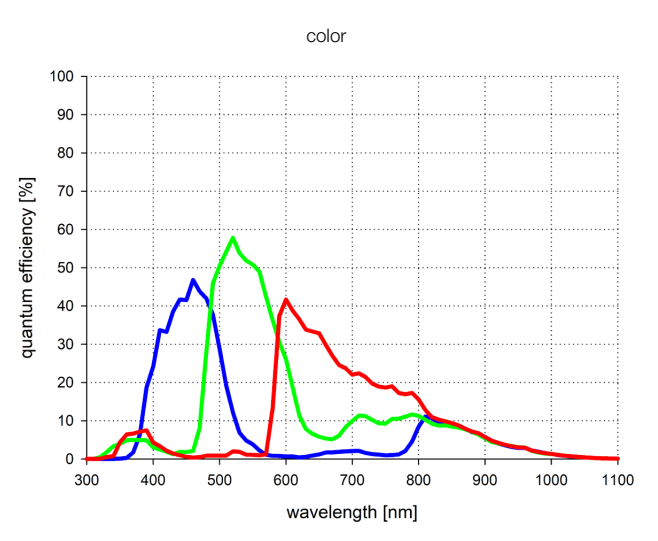
pco.panda 26

» general

power delivery	power over USB 3.1 Gen 1
power consumption	typ. 4.5 W (max. 6.0 W)
weight	600 g
operating temperature	+ 10 °C .. + 40 °C
operating humidity range	10 % .. 80 % (non-condensing)
storage temperature range	- 10 °C .. + 60 °C
optical interface	F-mount, C-mount
CE / FCC certified	yes

» quantum efficiency



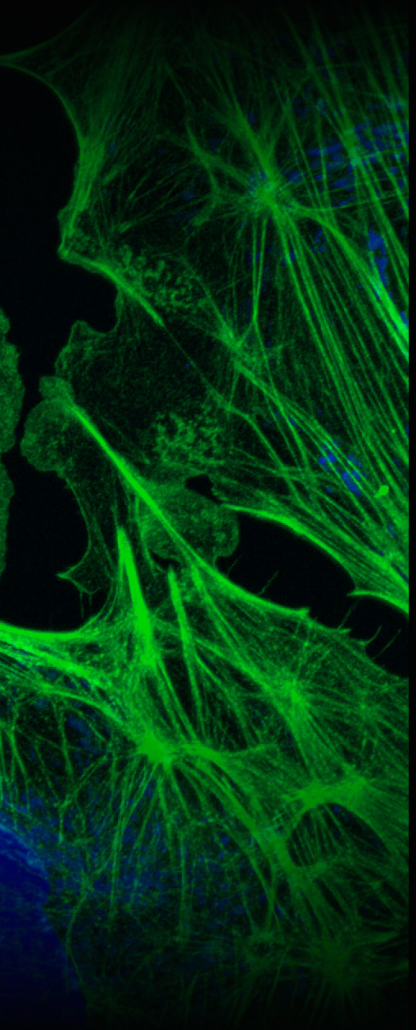


QE curves of image sensor as measured by manufacturer.

» frame rate table

5120 x 5120	6 fps
5120 x 1024	30 fps
5120 x 512	59 fps
5120 x 256	115 fps
5120 x 128	216 fps
1920 x 1080	29 fps
1600 x 1200	26 fps
1280 x 1024	30 fps
640 x 480	63 fps
320 x 240	122 fps

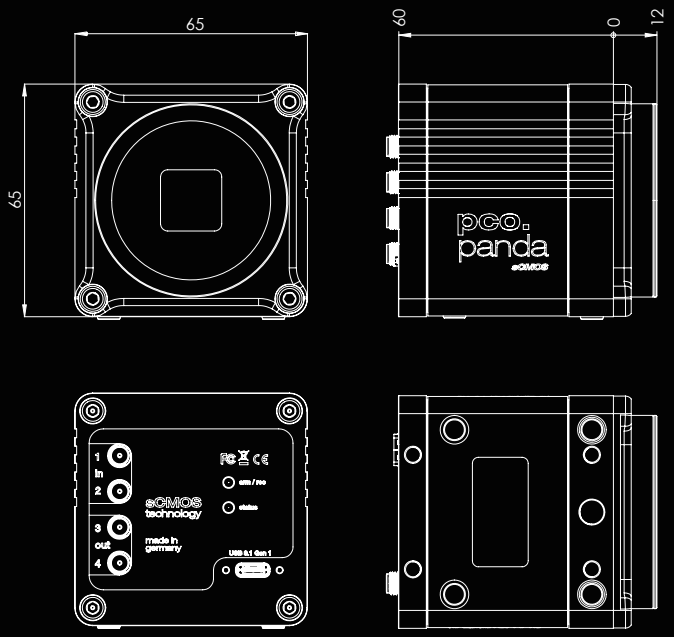
pco.panda 26



» benefits

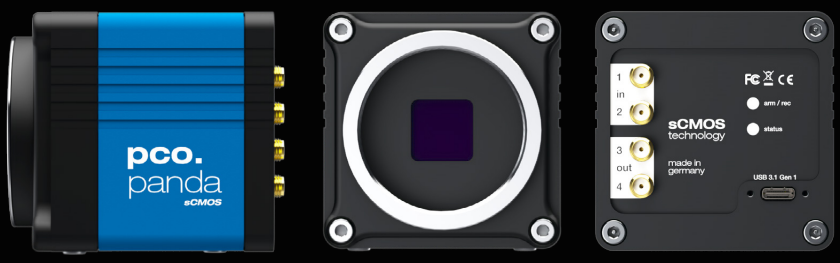
ultra compact design
sealed electronics for dust & dirt protection
spider-less mounting with only 6.18 mm to image plane

» dimensions



F-mount and C-mount lens adapter are changeable.
All dimensions are given in millimeter.

» camera view



pco.panda 26

» applications

brightfield microscopy | fluorescence microscopy | digital pathology | mesoscopy (low magnification microscopy) | high-speed bright field ratio imaging | high throughput screening | high content screening | biochip reading | spinning disk confocal microscopy | 3D metrology | industrial quality inspection

» software

With pco.camware you control all camera settings, the image acquisition and the storage of your image data. The pco.sdk is the complementary software development kit. It includes dynamic link libraries for user customization and integration on Windows-PC platforms. Drivers for popular third party software packages are also available for you.

All this items like pco.camware, pco.sdk and third party drivers, are free-to-download at www.pco.de.

» third party integrations