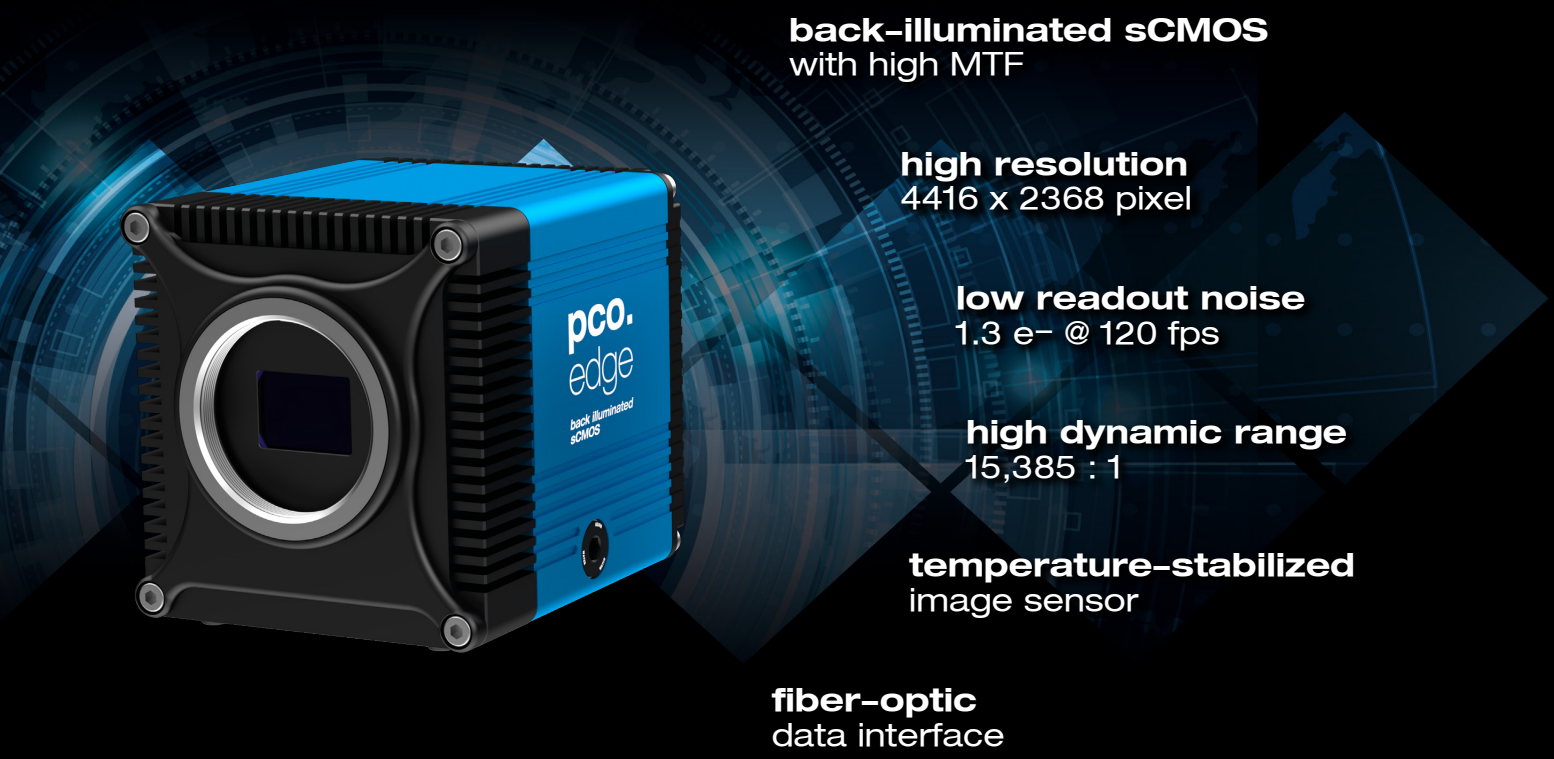
pco.edge 10 bi LT

the next level **sCMOS** camera



sensor technology	sCMOS
color type	monochrome
resolution [pixel]	4416 x 2368
sensor diagonal [mm]	23.05
pixel size [µm]	4.6 x 4.6
max. frame rate @ full resolution [fps]	120
max. pixel rate [MPixel/s]	1467
peak QE[1]	85 % @ 500 nm
typ. read noise[2] [e⁻]	1.3 @ 120 fps
dark current @ sensor temperature [e⁻/pixel/s]	0.2 @ +10 °C
max. dynamic range	15,385 : 1
shutter type	RS (Rolling Shutter)
interface	CLHS FOL
sensor cooling[3]	air & water
dimensions H x W x L [mm]	95 x 90 x 109
additional options	lens control

[1] Quantum efficiency
[2] The readout noise values are given as median (med).
[3] air = air forced with fan | water = external water connection

the next level sCMOS

The pco.edge 10 bi LT is PCO's next level sCMOS camera with a new imaging performance.
Thanks to its back-illuminated image sensor it comes with a quantum efficiency of up to 85 % with broad spectrum out to NIR. The sensor incorporates microlenses and a full pixel height deep trench isolation for crosstalk suppression resulting in an excellent MTF.

Further, the camera provides a large image circle by using a high-resolution 10.46 MPixel image sensor with a square pixel size of 4.6 um. An extremely low dark current and a readout noise of 1.3 (@ 120 fps) electrons is achieved by thermal stabilization and active cooling of the image sensor. Moreover, the sensor technology enables reduction of the noise peak and tail in the noise distribution histogram, which makes it comparable to to the noise behavior of CCD sensors. Together with a high full well capacity, this leads to a dynamic range of 15,385:1. The camera offers high frame rates of up to 120 fps and transmission via a CLHS fiber-optic link.

All these features make the pco.edge 10 bi LT the first choice for applications in microscopy, life science, and physical science.