datasheet
pco.dimax 3.6 ST CLHS

advancement through high-speed streaming

ST high-speed streaming

resolution
3.6 MPixel

pixel size
11.0 µm x 11.0 µm

interface
CLHS FOL



high-speed imaging
2160 fps @ 3.6 MPixel

real-time streaming
over 8 x 10G fiber

excellent sensitivity
11 µm pixel size

uncompressed 10-bit
data transfer

high fullwell capacity
up to 60 000 electrons

excelitas.com

excelitas®

technical data

image sensor

	low-gain mode	high-gain mode
sensor technology	CMOS	
color type	monochrome	
resolution (horizontal × vertical)	1984 px × 1792 px	
pixel size (horizontal × vertical)	11.0 µm × 11.0 µm	
sensor size (horizontal × vertical)	21.8 mm × 19.7 mm	
sensor diagonal	29.4 mm	
shutter mode	global shutter (GS)	
peak quantum efficiency	64 % @ 500 nm	
spectral range	340 nm - 1100 nm	
dark current (typ.)	< 1000 e^- /pixel/s @ +35 °C sensor temperature	< 150 e^- /pixel/s @ +35 °C sensor temperature
fullwell capacity	60 000 e^-	10 000 e^-
readout noise	< 65 e^- rms	< 12 e^- rms
dynamic range (intra-scene)	60 dB	58 dB

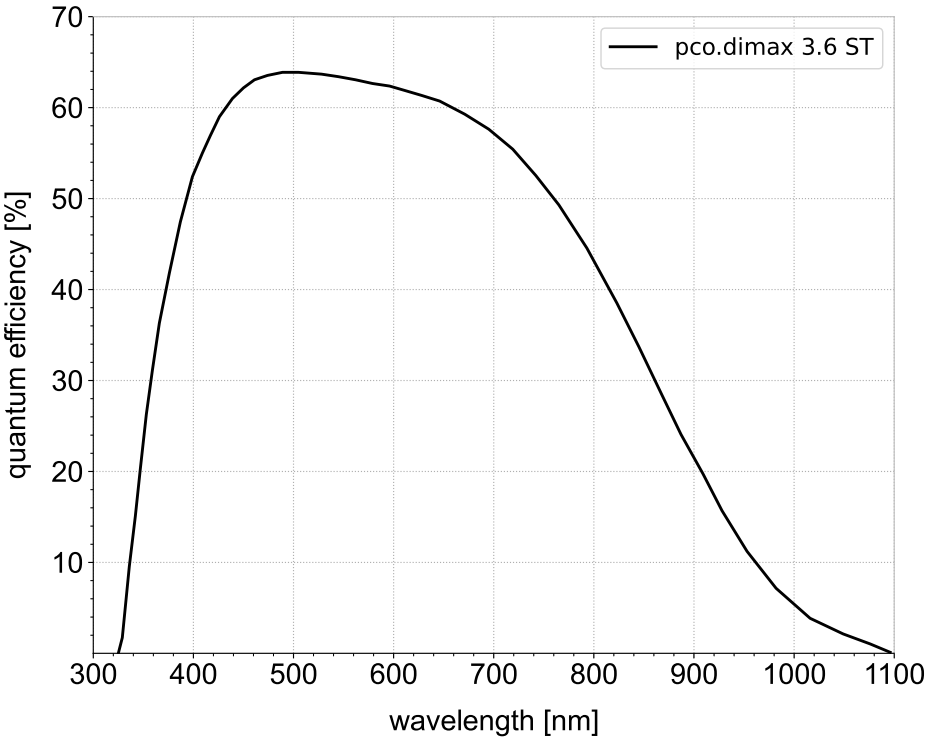
frame rate table

vertical resolution reduction	
1984 x 1792	2160 fps
1984 x 1024	3675 fps
1984 x 744	4936 fps
1984 x 512	6897 fps
1984 x 256	12280 fps
1984 x 128	20139 fps
1984 x 64	29617 fps
1984 x 32	38730 fps
1984 x 16	45772 fps

typical resolutions	
1920 x 1080	3496 fps
1600 x 1200	3166 fps
1280 x 1024	3675 fps
640 x 512	6897 fps
640 x 480	7297 fps
320 x 256	12280 fps
320 x 240	12910 fps

camera	low-gain mode	high-gain mode
max. frame rate @ full resolution	2160 fps	
exposure time range	9 µs - 1 s (step size 2 µs)	
dynamic range A/D	10 bit	
conversion factor	70 e^-/DN	10 e^-/DN
pixel rate	7.7 GPixel/s	
region of interest (ROI)	horizontal: steps of 64 rows vertical: steps of 8 columns (symmetrical, min. 16)	
binning	horizontal: x2 (average, sum) vertical: x2 (average, sum)	
non-linearity	< 0.4 %	
dark signal non-uniformity (DSNU)	< 60 e^-	< 20 e^-
photo response non-uniformity (PRNU)	< 0.5 %	
cooling temperature image sensor	+35 °C stabilized	
cooling method	forced air optional: liquid cooling	
trigger input signals	external exposure start, external exposure control, sequence trigger, acquire enable	
status output signals	exposure, busy	
input / output signal connectors	SMA	
time stamp	in image (1 µs resolution) and metadata	
data interface	Camera Link HS FOL	

quantum efficiency



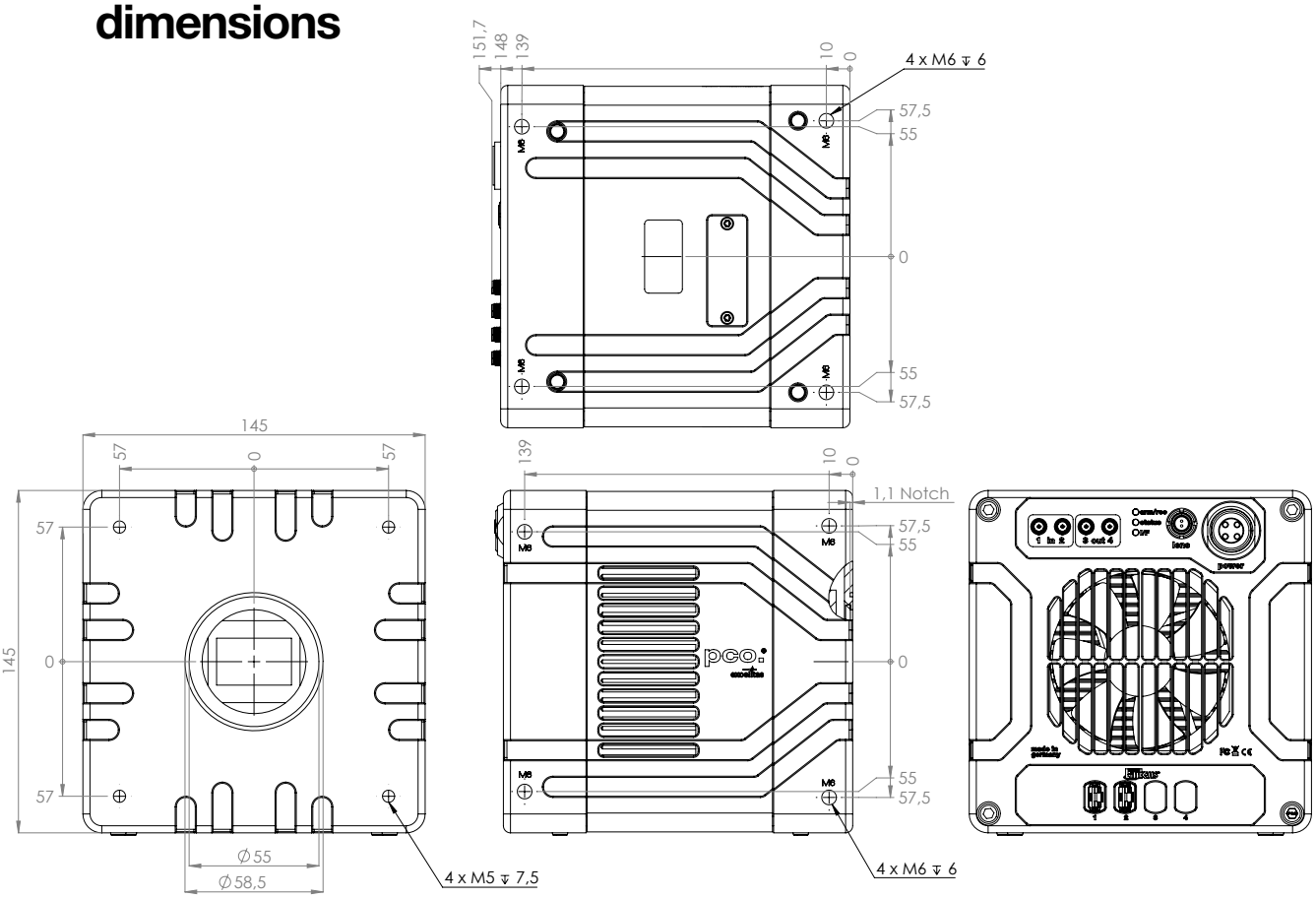
general	
power supply	24 VDC (±10 %)
power consumption	max. 120 W
weight	4.5 kg
dimensions (height × width × length[1])	145 mm × 145 mm × 160 mm
operating temperature range	+10 °C to +30 °C
storage temperature range	-10 °C to +60 °C
humidity range (non-condensing)	10 % to 80 % (recommended < 65 %)
certifications	CE, FCC, UKCA

[1] This value refers to the length including the camera flange.

optical interface	
direct mounting distance (no camera flange)	7.9 mm ±10 %
lens mounting	F-mount, C-mount
optional lens mounting	TFL-mount
optional lens remote control	EF-mount, EF-S-mount (Canon)

Configure your optical setup with our **MachVis™ System Configurator** online tool.

dimensions



outlines of pco.dimax 3.6 ST CLHS air-cooled without camera flange (all dimensions given in mm)

software

Your first choice is pco.camware:

Our main camera control software enables control of most camera settings and facilitates image acquisition and storage.

You can customize it exactly to your needs using different layouts, styles and features.

You prefer to use a different software:

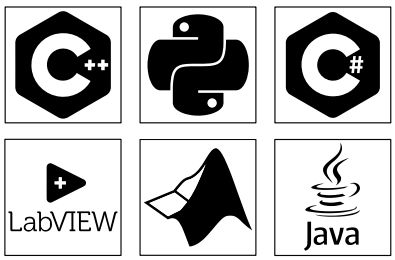
Our cameras integrate with a range of third-party software applications.

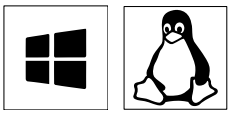
In microscopy we offer dedicated support for µManager, while ensuring compatibility with other software maintained by their providers.

You want to create your own application:

We feature a wide range of software development kits (SDK) for various programming languages, such as C++, Python, C#, LabVIEW, Matlab, and Java.

If you are looking for more general SDKs, we present pco.sdk and pco.recorder, our low-level SDKs with C interface.





Our software is available for Windows and Linux platforms.
Visit our **website** for detailed information, installation guidance, and Github projects.

areas of application

industrial production control and analysis | industrial quality assurance | material development | welding technology | laser & inert gas welding | aerospace | astronomy | automotive airbag & component testing

ordering information		
pco.dimax 3.6 ST AIR	85108025001	camera system, monochrome, 1984x1792 pixel, air cooling, CLHS, 8x10G fiber optics
pco.dimax 3.6 ST WAT	85108025003	camera system, monochrome, 1984x1792 pixel, liquid cooling, CLHS, 8x10G fiber optics

© 2026 Excelitas Technologies Corp. All rights reserved. The Excelitas logo, Excelitas® and PCO® are registered trademarks and MachVis™ is a trademark of the Excelitas group of companies. All other products and services are either trademarks or registered trademarks of their respective owners. Excelitas reserves the right to change this document at any time without notice and disclaims liability for editorial, pictorial or typographical error.

pco.®

address:	Donaupark 11 93309 Kelheim, Germany
phone:	(+49) 9441-2005-0 (+1) 866-662-6653 (+86) 0512-6763-4643
mail:	pco@excelitas.com
web:	www.excelitas.com/pco



excelitas®

excelitas.com