

Innovative and Smallest 25MP Camera with Outstanding Image Quality

New ace 2 models with 1.1" sensor

Basler's new ace 2 camera models deliver outstanding image quality with its high-resolution, square E2525A sensor, all at a competitive price.

With its proven compact camera housing, 25 MP resolution, 1.1" sensor format and 2.5 μm pixel size, these cameras are ideal for industrial inspection applications that require high precision.



5GiGE
VISION

GiGE
VISION

USB
VISION

CoaXPress

Highlights

- **Excellent value:** competitive pricing starting from €1,399
- **Exceptional image quality:** outperforms other sensors with 25 MP and square format
- **High-resolution:** 5064 x 5064 pixels with a 2.5 μm pixel size for capturing the finest details
- **Compact in size:** 29 mm x 29 mm standard for easy integration
- **1:1 sensor format:** fully utilizing the camera's C-mount
- **Various interface options:** USB 3.0, GigE, 5GigE, CoaXPress for maximum flexibility

Camera models: ace 2 with E2525A sensor

CAMERA MODEL	SENSOR	RESOLUTION (HXV PIXELS)	RESOLUTION (MP)	FRAME RATE [FPS]	SENSOR TYPE	SHUTTER	INTERFACE	PIXEL SIZE [μm^2]	OPTICAL SIZE
a2A5060-35cm/cc	E2525A	5064 x 5064	25	35	CMOS	Global	CoaXPress	2.5 x 2.5	1.1"
a2A5060-15um/ucBAS	E2525A	5064 x 5064	25	15	CMOS	Global	USB 3.0	2.5 x 2.5	1.1"
a2A5060-21g5m/g5cBAS	E2525A	5064 x 5064	25	21	CMOS	Global	5GigE	2.5 x 2.5	1.1"
a2A5060-4gm/gcBAS	E2525A	5064 x 5064	25	4	CMOS	Global	GigE	2.5 x 2.5	1.1"

Companion products for your complete vision system



Lenses



Lighting



Acquisition Cards

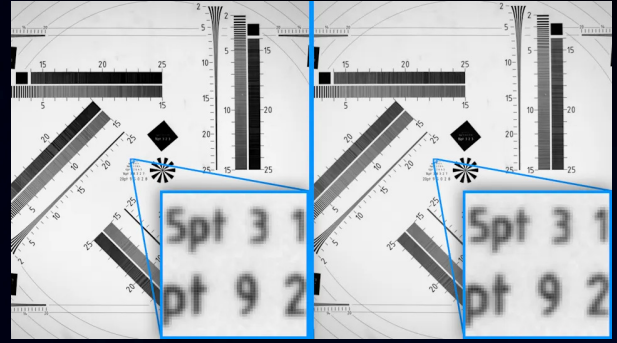


Cables

Image quality and EMVA data

Image quality comparison

The image comparison demonstrates that our camera, featuring a 25 MP resolution and square 1.1" sensor format, performs just as well as a comparable camera with a well-established 25 MP sensor. The field of view and image quality, even in detailed views, are comparable.



Left: Comparison camera with established sensor
Right: Basler camera with E2525A square sensor

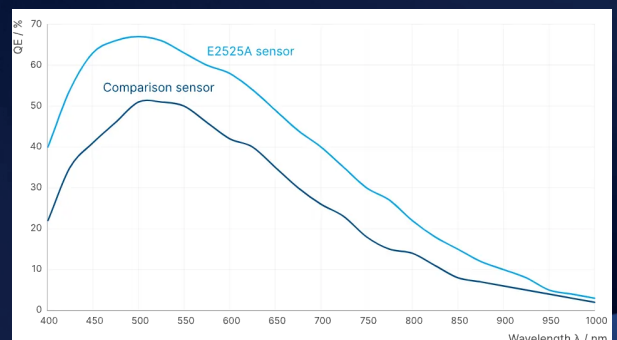
EMVA data comparison

The E2525A sensor demonstrates superior performance across all key EMVA parameters compared to the established comparison sensor. E.g. it achieves higher quantum efficiency over the reference sensor enabling significantly reduced exposure times, which is especially important for low-light applications.

	COMPARISON SENSOR	E2525A SENSOR	IMPROVEMENT
Quantum efficiency	51%	66%	30%
Dark noise	3.7 e ⁻	2.5 e ⁻	32%
Dynamic range	957 = 60 dB	2589 = 68 dB	170%
Signal-to-noise ratio	65 = 36.30 dB	90 = 39.07 dB	38%
Dark signal non-uniformity (DSNU) / Photon response non-uniformity (PRNU)	22 e ⁻ / 2%	0.3 e ⁻ / 0.7%	95%/65%

QE curve comparison

The QE curves of the established comparison sensor (dark blue) and the E2525A sensor (light blue) demonstrate that the E2525A sensor in the Basler camera consistently offers a higher QE.



To access additional testing results,
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